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THE RAILROAD MAN'S MAGAZINE

Told in the Smoker

MAY

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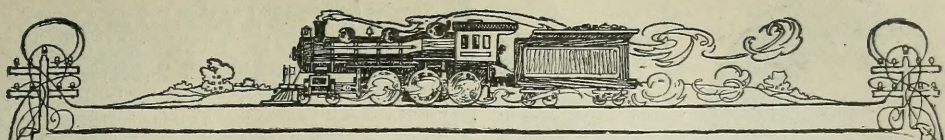

THE RAILROAD MAN'S MAGAZINE

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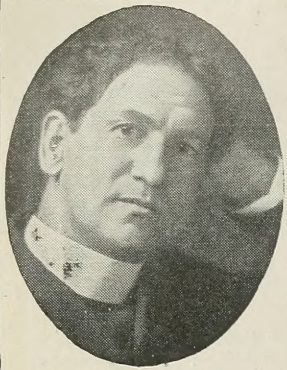

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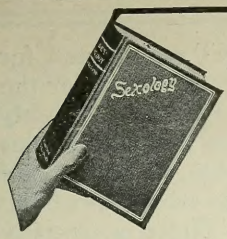

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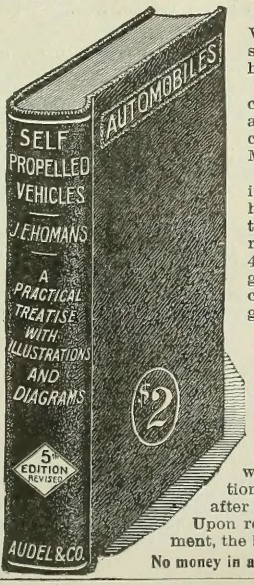

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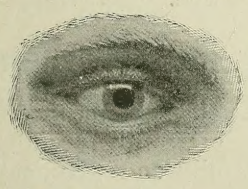

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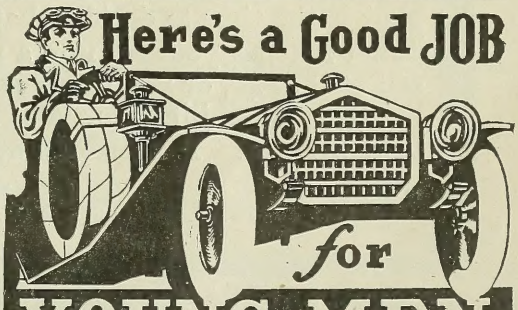

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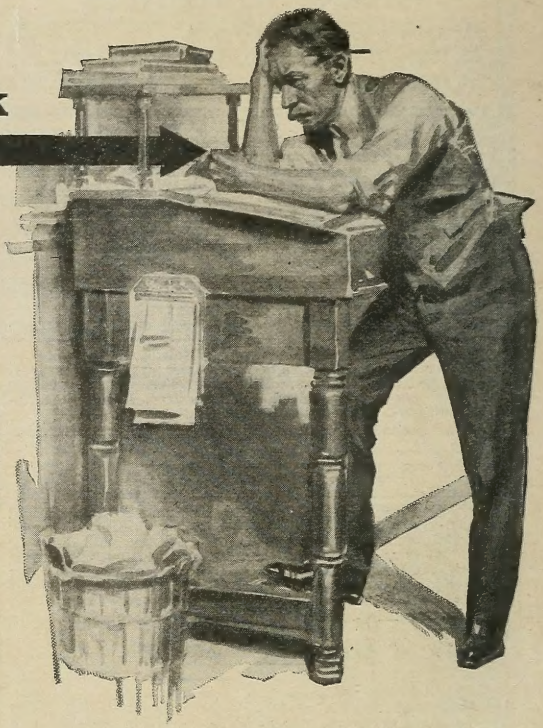

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Railroad Man's, 5-'10.

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CHICAGO, U. S. A.

THE RAILROAD MAN'S MAGAZINE

Vol. XI. MAY, 1910. No. 4.

Hold-Ups That Missed Fire.

BY FRANK MARSHALL WHITE.

GETTING away with it is the chief and most hazardous part of the hold-up man's game. Almost anybody can stop a train, by hook or by crook, and even getting to the goods is comparatively simple. But when the robber's back is turned; when the threatening danger of his gun is removed; when every move he is making is laying a clue—there is the almost insurmountable difficulty. If the Big Swede had kept his head he might have got away with it. So might the other desperadoes mentioned in this story. But they were doomed before they started by their own inefficiency.

Men Who Have Embraced the Dangers of Opposing the Law, and Have Lacked in Nerve or Brains To See It Through.

THE Helena Express on the Northern Pacific Railroad, in Montana, was just crossing the Little Green River bridge, after leaving Gallatin on a moonlight night.

Caspar Fischer, the engineer, with his fireman, John Nicoll, were standing together at the cab window, when a stern voice behind them suddenly commanded:

"Hands up—both of you—quick!"

Fischer and Nicoll had their hands above their heads before the man at their backs had fully issued the mandate.

Neither turned his head, it being etiquette in Montana under such conditions to await directions before moving, since a desperado with a pistol is very likely to mistake any action for a hostile one.

In another second came this sharp second command:

"Now, then, you, engineer! Turn round and go through the fireman's pockets. Be quick about it, because your engine is likely to need attention."

Fischer turned at once, and did as he was bidden, taking everything out of his fellow employee's raiment, including a .38 revolver, which he handed, butt first, to a man of gigantic stature, who was standing within two feet of him, and covering him with another .38.

"Back up here, now," said the giant, hurling the captured weapon from the engine over his shoulder.

Fischer promptly turned and backed, and his captor went through the engineer's pockets with his left hand, relieving him of their contents, which also included a revolver that might have been a brother of the other two, Nicoll meanwhile standing with his hands still above

his head and his back to the other occupants of the engine, realizing that an unwary motion was likely to prove fatal.

The giant threw the engineer's pistol into the ditch beside the track, as he had that of the fireman, and issued further instructions.

"Engine need any attention?" he inquired briskly of Fischer. "If she don't, take this rope and tie up the fireman." And he handed him a piece of strong cord about five feet in length, again using his left hand, and still keeping the engineer covered with the pistol. Fischer barely felt the throttle of the big machine that was whirling the express along the tracks; and, finding everything all right with her, took the cord and proceeded to bind his fireman's arms.

"Make a good job of that," warned the giant calmly, but in a tone calculated to compel close attention. "If he comes unbound, I'll shoot you and let him run the engine!"

The Big Swede.

Fischer took pains, and did make a good job of it. Then Nicoll was ordered to go back to the tender and lie down on the coal. The engineer was compelled to bind the other's feet with another piece of cord furnished by their captor.

Both the fireman and the engineer by this time had recognized their new and summary acquaintance, from descriptions they had heard and read of his great stature, flat nose and fair hair, as Herman Young, a hold-up man with a reputation, known in that part of the country as the "Big Swede."

The Big Swede turned his attention to Fischer, pistol in hand.

"Neither of you fellows is a tenderfoot," he said to the engineer; "and you know perfectly well that if you obey orders nothing is going to happen to you; and that if you *don't* obey orders something *will* happen mighty sudden. When we get to the siding at the foot of the incline, four miles along, stop the train and uncouple the express-car. We'll take that car along with us a ways."

There was nothing for it but to obey, as Fischer knew perfectly well.

It was about ten-thirty o'clock when the express reached the siding at the foot of the incline designated by the Big Swede; and, obeying his orders, Fischer stopped the train. Still following instructions, the engineer jumped from the engine to the ground, followed by his captor, with finger on the trigger of his pistol.

Train-Crew Kept Dark.

The conductor and the train-crew had surmised the reason for the stopping of the train, and they did not venture to show themselves any nearer to the engine than the rear platform of the last car. They would have been fools if they had, for they did not know how many were in the attacking party, nor from what point along the track a shot might come.

At the point of the Big Swede's pistol Fischer uncoupled the express-car from the passenger-coaches behind it, and from the baggage-car in front. Then he returned to the engine and hauled the baggage-car out on the siding, coming back on the main track and closing up to the express-car.

He got down from the engine to turn the switch at each end of the siding, and again to couple the express-car to the engine, on each occasion escorted by the desperado, with the pistol cocked and ready.

During all this period the train-crew and the passengers remained inside the car. Indeed, few of the passengers knew that any unusual occurrence had stopped the train.

Had Dynamite Ready.

Under Young's direction, Fischer took the express-car up the incline and ran it some two miles away from the rest of the train, where he brought it to a standstill. There was no other train due along the line for several hours, so that there was no immediate danger of a collision, and now the engineer and his captor approached the baggage-car, where the latter called upon the express messenger, Ike Perkins. There being no response, the Big Swede produced a stick of dynamite from his boot-leg and made Fischer blow the door open, the explosion tearing out one end of the car.

Approaching this aperture, forcing Fischer to walk before him as a shield, the desperado discovered Perkins, with cocked revolver, standing guard over the property committed to his care, and called upon him to throw his weapon out of the car and empty his pockets. The express messenger obeyed orders. He could not shoot at the robber without endangering the life of Fischer. On the other hand, Perkins afforded a fair mark for Young.

HIS CAPTOR WENT THROUGH THE ENGINEER'S POCKET.

Once inside the express car the Big Swede, cool and masterful, produced another revolver and more dynamite and, covering both of the other men with his battery, he ordered them to blow open the safe, which he knew to contain many thousands of dollars in actual cash.

The Big Swede's Mistake.

And now a surprising thing happened. As the safe fell apart at the sound of the explosion a mass of loose yellow coin rolled out on the floor—seventeen thousand dollars in gold double-eagles. The sight temporarily unbalanced the Big Swede's mind, and, with a roar of delight, he dropped both of his pistols and fell head forward into the golden flood, attempting to pick up an armful. In a fraction of a second Perkins seized a piece of the wreckage of the car and struck the desperado a terrible blow over the back of his head.

The Big Swede did not recover consciousness until noon the following day, when he found himself under guard in the hospital at Montana. He is at present serving a term of fifty years in State prison, for the hold-up men get long sentences in Montana.

It is the circumstance that, by reason of the enormous productiveness of the soil over vast but under-populated areas in Montana, it is difficult always to safeguard the overflow of wealth that has

brought lawless and desperate men into the State. It is because of these conditions that the shrievalty in these prosperous agricultural districts goes to that man whose integrity is not only beyond chance of reproach, but whose physical strength and courage are one with his public spirit. It is not a case of setting a thief to catch a thief in that part of the country, for the holder of the office of sheriff not only must be as quick on the trigger and seemingly as reckless of life as the prowling marauder it is his duty to suppress, but he must possess the highest confidence of the community he binds himself to protect, and be prepared to sacrifice his own interests at all times for the pubic welfare.

A Sheriff's Duty.

Milton W. Potter, former sheriff of Carbon County, Montana, who has a record of riding five days and nights with only one square meal, and not more than an hour or two of sleep at a time, in pursuit of two outlaws who had committed murder, said to the writer recently:

"A sheriff out there must be always ready to jump on a horse at a moment's notice, prepared to ride like a Crow Indian, without food or water."

The duties of the office are arduous, but to hold it is an honor sought by good citizens.

The activity of the Montana sheriffs has rid the State of most of the more dangerous of the hold-up men, but the chance of making a fortune in one job by the looting of a money-laden express-car continues to lure desperadoes.

Indeed, even boys have tried their hand at the game. Last April three young ruffians, all under twenty-one years of age, attempted a hold-up at Homestake, where the Northern Pacific trains stop just before coming into Butte. The boys, who had evidently read about the methods of train-robbers, had concealed themselves behind the water-tank at Homestake as the train came in, and then climbed aboard the engine tender and hid in the coal as it pulled out.

When the train was well under way the trio, each with a revolver, appeared before Frank Clow, the engineer, and demanded that he stop the train. Clow reached down, probably to operate the air-brake, it is supposed, but the boys, believing that he was reaching for a weapon, fired at him all together, killing him instantly.

They were caught, and are serving sentences of eighty years each, which, with commutation for good behavior, will bring their terms down to something like thirty years.

Another desperado named Kinnicutt, who was a novice in the use of dynamite, wrecked a train at Bear Mouth, on the Northern Pacific, last May, for the sake of the contents of the safe in the express-car; and though he effected the deaths of three better men, was himself captured and hanged. The train on this occasion was running at the rate of some twenty miles an hour, five miles from the station, about eleven o'clock one night, when the engine exploded a tremendous charge of dynamite on the track, and was blown to the top of an embankment thirty feet high, killing the engineer, fireman, and a brakeman who happened to be on the front platform of the baggage-car. The other cars were thrown from the track, but the passengers suffered only minor cuts and bruises.

Hoist With Own Petard.

During the confusion attendant on the catastrophe a man was found lying unconscious one hundred feet from the wreck. He proved to be Kinnicutt himself, who, not being aware of the force of the explosive he had used, had remained too close to the track. Before he was hanged in August he was shot through the hips, while attempting to break jail at Butte.

Another Montana bandit was equally unfortunate with the others whose misadventures have been related. This fellow, who has not been identified, had developed a scheme with another, who escaped without being recognized. On this occasion the Eastern Express from Billings, which was carrying a big shipment of gold, was to have been held-up ten miles out of the town. One of the would-be robbers took a seat in the passenger-car at Billings, and the other got aboard the rear platform of the baggage-

PERKINS SEIZED A PIECE OF THE WRECKAGE OF THE CAR AND STRUCK THE DESPERADO.

car, whence he crawled over the top to the engine tender.

Now, it so happened that Conductor Jackman, for some reason or other, became suspicious of the man in the passenger-car; and when that person followed him out to the platform, a quarter of an hour after leaving Billings, he was prepared for him. The result was that each drew a revolver, and that Jackman got his out first and shot the other man through the heart.

Meantime, the confederate had reached the tender of the engine; but, before he had attempted to hold up the engineer, the conductor had pulled the communication cord as a signal to stop the train, upon the shooting of rascal No 1.

Rascal No. 2 evidently surmised that the scheme to rob the express was not working smoothly, for the engineer saw him jump from the engine as the train began to slow down.

The incident that was most talked about in Montana in 1908, wherein was shown the kind of sheriffs out there, and also the perils to which they are subjected, had its real beginning some eight years before.

On that occasion a Western desperado,

IT PROVED TO BE KINNICUTT.

Harry Roche, with a companion whose identity was not established, planned to rob the Northern Pacific Express at Logan.

Both sneaked to the rear platform of the baggage-car, as the train was leaving this point, and Roche sent the other man over the top of the car to deal with the engineer. He had some doubts as to his confederate's nerve, and hence he watched him closely. Just as the fellow was dropping from the front platform of the car, Roche, who was a pretty shot with a revolver, put a bullet through his brain from the rear-platform steps.

The Sheriff Shot.

The desperado was recognized as he leaped from the train, and although the death of a hold-up man was no loss to the community, Sheriff George T. Young, of Logan County, determined to capture Roche and put him out of the way.

With his deputy, Frank Beller, the sheriff started in pursuit of the desperado, overtaking him at the station at Springville just after dark, on the evening after the killing of his partner.

Roche saw the two men coming from a window of the station, and went out into the darkness of the platform and, with drawn pistol, watched the station door.

As the sheriff came out, with the light behind him, Roche shot him through the heart; and when he fell, and Beller stooped to pick him up, he sent a bullet into the deputy's lungs, from which the deputy recovered after a long illness.

The double murder—as it was at first supposed to be—of the sheriff and his deputy roused Montana and Wyoming as no similar occurrence had ever done. Roche's description, with the news of his crime, was immediately telegraphed and telephoned to the remotest points.

The police all over the West were

notified, and every railway station in Montana and Wyoming was watched. Young had been a leading citizen of Logan. He was personally popular, and his friends swore that his death should be avenged.

No trace of Roche was ever found, and nothing ever heard of him. It was generally believed that he had either committed suicide or had died of exposure.

Among the personal friends of Sheriff Young, who took an active part in the search for Roche, was the prosecuting attorney of Yellowstone County, a leading resident, lawyer, and property owner of Billings, John Brooke Herford by name. Herford, who had come to the West some twenty years before, is of English birth, a son of the Rev. Dr. Brooke Herford, before his death a celebrated Unitarian clergyman in London.

He is also a brother of Beatrice Herford, the monologist, and of Oliver Herford, famous as playwright and wit. Herford was one of the first men to volunteer in the search for Roche, and among the last to give up.

Didn't Know His Capture.

Sheriff John T. Webb, of Yellowstone County, traced a man who was wanted for grand larceny at Basin, in Big Horn County, to James Richardson's sheep-ranch, fifty miles from Billings, and arrested him. The arrest was made early in the afternoon out on the ranch, five miles from the house, whither Richardson had driven the sheriff on a buckboard, his horse having been left in the stable.

The prisoner had been working on the ranch for several weeks under the name of Buck Jones. When he was informed that he was under arrest, he asked the sheriff if he might go into a covered wagon close by, that contained such primitive toilet accessories as are in use on sheep-ranches, and clean himself up a bit before being taken away.

The man who called himself Buck Jones was none other than Harry Roche, who, since the murder of Sheriff Young eight years before, had been working as a ranch-hand, having in some manner avoided identification. Sheriff Webb, believing him to be an ordinarily harmless criminal, good-naturedly allowed him to visit the wagon, which was only a few feet away.

Roche was well aware that if he were taken into a court of justice anywhere in Montana, he would be sure to be recognized by some one there, when his shrift would be short. There was a Winchester rifle in the wagon, and, a second after the presumed Buck Jones had climbed in, Sheriff Webb, who was talking to Richardson, heard the stern command: "Hold up your hands!" Turning, he saw his prisoner covering him with a rifle not ten feet away.

No Quarter.

Now, while it is considered no disgrace for the ordinary citizen in the troublous parts of the West to put up his hands when another man has the drop on him, it is not etiquette on the part of a sheriff. Consequently, Webb only reached for his revolver, whereupon Roche shot him through the heart, as he had Sheriff Young.

Richardson, who was a very ill man at the time — in fact, he died under an operation for appendicitis a week later — had no weapon with him, but his former employee offered him no injury. He merely took the dead man's revolver and cartridge-belt and started away across the ranch, carrying the Winchester rifle also.

Richardson drove the buckboard back to his house, the horse at a gallop, and telephoned the news of the murder of Webb to Deputy Sheriff Taylor at Billings. The news threw the town into an uproar, for Webb was a prominent citizen, a silent, kindly man, and, aside from that, he represented the majesty of the law.

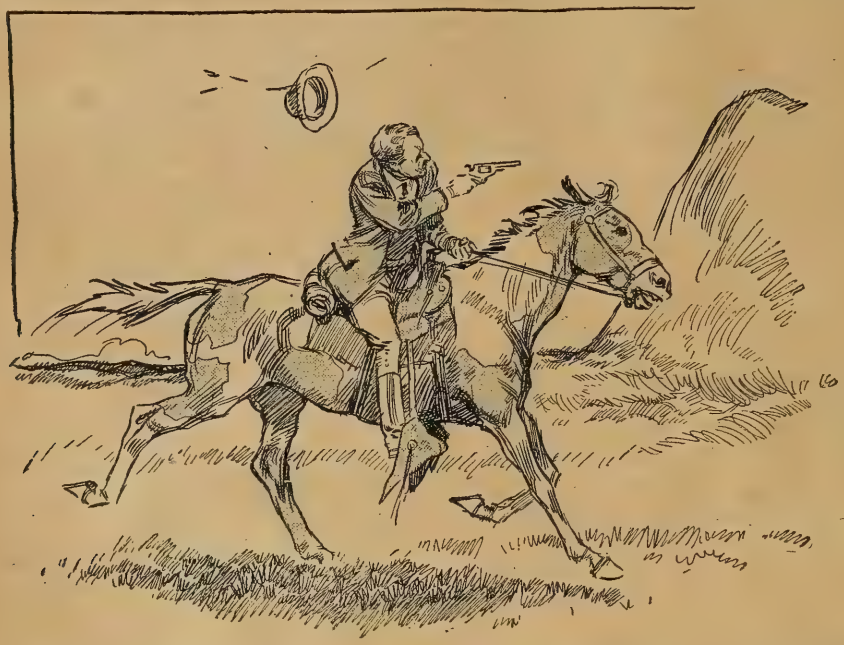
As had been the case when Sheriff Young was murdered, the news of the killing of Webb was telegraphed and telephoned all over Montana and Wyoming. There was a general uprising to hunt down the murderer, armed men closing in upon Richardson's ranch from east, west, north, and south.

Special trains to carry the man-hunters were run to Billings, the nearest railroad-point to the sheep-ranch from Miles City, and from Forsyth in Wyoming, while mounted deputies from the nearer towns, and citizens, carrying rifles, from

Bozeman, Big Timber, Red Lodge, Columbus, Laurel, Round Up, Lewiston, Basin, and a score of other places hurried to the scene of the tragedy as fast as horses and steam could take them.

As it happened, one of the first men the sleeping-quarters of the men who cared for the stock.

The fugitive was not likely to let them get too close, and they had no means of knowing how clever a marksman he was, as he had killed Webb at short range.



Deputy Sheriff Taylor met, when he ran out of his office to spread the news of Webb's murder, was John B. Herford, one of the victim's best friends. Herford had just come into town from Bear Creek in his touring-car, and, only waiting long enough to go to his house for his rifle and revolvers, and taking Taylor into his car, he put on all speed for Richardson's ranch, fifty miles away, which was reached in an hour and a half.

They Were Good Targets.

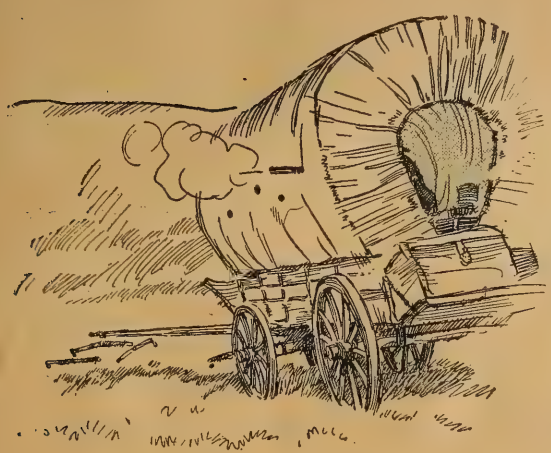
The departure of the two men had been telephoned to Richardson, who had horses waiting, and, getting directions as to the course the murderer had taken, they galloped out over the ranch with weapons ready. Herford and the deputy sheriff were exposed on horseback and made excellent targets for the desperado, who might be in any one of the covered sheep-wagons, which, placed at varying distances apart over the big ranch, were They did know that a good shot might pick both riders at long range.

However, the men rode from one wagon to another, inquiring for traces of the sheriff's murderer, and finally located him in one of the sheep-wagons about seven miles from the spot where he had shot Webb. He had made holes in the canvas cover on both sides of the vehicle, through which he could put the end of his rifle, and he made his presence known by a shot that whistled by Herford's head, following it up by another that was intended for Taylor. Fortunately for them, he did not prove to be an expert with the rifle.

The horsemen waited until the man in the wagon fired again, and instantaneously returned his fire, aiming just below the point where the flash of his rifle was seen. He responded promptly, and thirty or forty shots were exchanged during the next half-hour.

It had been a fine spring day; but now, about four o'clock in the afternoon, it

suddenly turned cold and began to grow dark, while the wind rose and snow began to fall, creating exactly the conditions favorable for an escape. If the hunted man were able to hold off his pursuers for only a few minutes more, they



FOUR BULLETS FLEW BY HIS HEAD AS HE APPROACHED, THE LAST ONE TAKING OFF HIS HAT.

felt that he might easily slip out of their sight in the darkness and snow.

The Inevitable End.

Then Herford took a desperate chance. He was a dead-shot with a pistol, and, handing his rifle to the deputy sheriff, he suddenly rode down on the sheep-wagon at full speed, pistol in hand. Four bullets flew by his head as he approached, the last one taking off his hat at the moment that, aiming in at the rear of the wagon as he dashed by, he shot the murderer through the brain.

The men found then that others of their shots had broken one of his legs in two places, so that his escape would have been impossible.

That was the end of "Buck Jones," but it was not until several days later that it was learned that it had been the end also of Harry Roche, train-robber and triple murderer.

His end was the well-nigh inevitable one. The law of a life for a life exacted by human justice has its root deeper than the human will. It is inborn in Circumstance. And, after all, the chief characteristic of train-robbers, and of all other robbers for the matter of that, has always been futility.

A grim visage, a desperate determination and a gun are poor substitutes for the particular efficiency which is really a product of moral directness. Many of our "stick-up" friends often for a time have seemed to defy the law of the community and the law that works for ultimate justice, but always in the end they have been caught up with.

Sometimes the "catching up" has resulted in the end of a rope or a long residence in prison. At other times the "catching up" has been more secret but not less terrible. Always it seems that the deficiency that causes men to attempt the achievement of wealth without taking a legitimate part in the world's industries is a symptom of failure, even in the violent profession of their own choosing.

At any rate, train robbery as a means of getting a living seems to be rapidly falling into disfavor, for the simple reason that it has become more and more unprofitable. Now and then there are spasmodic and isolated attempts to revive the industry, as in the case of the Pennsylvania hold-up of recent history, but, as in that case, the game has usually proved to be worth something less than the grease of the candle.

Patrolled tracks do not lend themselves readily to the exploits of hold-up men, neither do steel cars, mighty safes, and splendidly organized railway, private, and city detective systems. The particular brand of incompetent who once turned his gun upon the engineer has been compelled to choose some less heroic outlet for his villainy. And, aside from this, the legal punishment for train-robbery in some States is too severe to lure the highwayman to take chances in a game that may or may not be profitable even if he is not eventually caught.

A HERO FOR HAZELLE.

BY FRANK CONDON.

When You Steal an Engineer's Girl, Don't Wear a Swiss Hat with a Sassy Green Feather.

THERE was a train on the N. Y. E. known as the Cannon-Ball Limited Mail. It was more than a mere thing of wheels, wood, and glass. It was a sacred institution. They had photographs of it in the waiting-rooms all along the road, and whenever the line advertised, it used a cut of the Cannon-Ball tearing over the trestle at Washington Span, with wisps of steam shooting out of her cylinders. Officials spoke of the train with respect; the president invariably rode over the line on her once a year; and it was the ambition of every engineer and fireman to land in the cab of the big mogul that dragged the Cannon-Ball daily from Cincinnati to Philadelphia.

The Cannon-Ball was an all-mail affair — six heavy coaches. The government kept an eye on her like old Mr. Thomas Cat at a rat-hole. In a moment of aberration, at some distant date the N. Y. E. had contracted to carry mail to tidewater, and as the government seemed a trifle peevish about past service, the N. Y. E. flipped its fingers and announced to the government that, while somebody's railroad might bring mail in late, the N. Y. E. was doing business on a different line.

To show the government what a real railroad could do in the way of being prompt, the N. Y. E. guaranteed to deliver six coaches loaded with mail every day at Philadelphia from the West, and for every minute the Cannon-Ball was late in pulling in the N. Y. E. would pay the government the sum of ten dollars.

It sounded like an earnest proposition to Washington, and before the N. Y. E. realized it the road was bound up by a contract that couldn't be broken by harsh words, dynamite, or legal prestidigitators.

Ten dollars a minute amounts to considerable money when a train is a few hours late. When the N. Y. E. got down to business, the general superintendent had a long, serious talk with the men who were to run the Cannon-Ball.

He impressed them, one and all, that the N. Y. E. regarded ten-dollar bills with distinct reverence, and if they were, singly or collectively, guilty of bringing the train in late, they would be taken out and hanged to the beams in the roundhouse immediately after arrival. There was one loophole. The government admitted that human man could not overcome certain acts of Providence. When Providence happened to tip a cloudburst over the N. Y. E. System and wash away its rails, the government would not insist upon its pound of flesh. Other than this, there was no escape. The Cannon-Ball must be on time.

Railroads are railroads, and governments are governments, and mail is mail.

But what are these to Love?

No far-seeing railroad would ever attach to the throttle of the Cannon-Ball Mail a young engineer who was hopelessly in love, provided the railroad knew he was in love.

If the railroads could have their way about it, they would not permit falling in love. They would prefer married men; but in this instance the N. Y. E. knew nothing about the state of Jerry Skeldon's heart. It knew that he had a steady hand and a keen eye, that he had nerve and courage, that he could tear the old

Cannon-Ball along at anywhere from seven to seventy miles, and that he rarely was five seconds late at any point on the line.

Jerry Skeldon was particularly young to be the engineer of the important train over which the government was watching, and if he had not been in love for some time, and therefore was totally unable to do anything about it, he would have refrained from getting into such a state as a matter of duty to his railroad.

Two years before, young Skeldon was a fireman. One sunny afternoon, while his train was running through the red-clay cut six miles east of Northampton, he had carelessly waved a begrimed handkerchief at a girl on the lip of the cut.

All he could tell about the girl was that she seemed young and slender, and that her gown was one of those fluffy apple-blossom affairs that men like to see.

On that trifling and accidental salute depended grave things and weighty matters. The fluffy girl was on the top of the red-clay cut two days later, when Jerry's train banged along toward Winchester. Naturally he waved again, this time with a perfectly clean white handkerchief. To his surprise, the vision waved back at him.

Thus, for two months fireman and girl greeted each other every second day; and when the girl missed a week without once appearing, Jerry Skeldon took a leave of absence and chased himself out to Northampton, where he found, after careful sleuthing, that a girl named Hazelle Hoisington was ill with typhoid.

He wired for extended leave, put up at the lone hotel in Northampton, bought flowers, fruit, and books, and when the girl was able to sit up in bed he came in one day and shook hands with her.

TO HIS SURPRISE, THE VISION WAVED BACK AT HIM.

"Glad you're getting better," said Jerry Skeldon. "I'm the fireman on the Cannon-Ball. I've been waiting here for two weeks till you got better."

The girl smiled at him wanly, and he became a member of the household. Hazelle's father and mother may have been surprised, but they could not deny Jerry's solicitude nor his flowers.

In a few weeks he returned to the world of fire-boxes, signal-lamps, and switches, and he did so with a sort of understanding with Miss Hoisington. They were to be married eventually. Every week Jerry came to Northampton, rented a livery-rig, and then drove abroad among the trees and fields.

Jerry had been accustomed to parting company with his income as rapidly as possible, and before marrying it was necessary that he should accumulate a working capital.

He started about it within a week after reaching the agreement in Northampton. Two weeks following that he was made an engineer, in appreciation of service well done.

Later on, when the N. Y. E. landed the government mail contract, he took the throttle of the big Atlantic at the head of that stately train.

For a time, life was roses and honey.

Every second day the Cannon-Ball shot through Northampton and six miles to the east. Jerry leaned from his cab and waved to his sweetheart. It was a brief signal, but it was the sort of wireless that really amounts to something.

Then they had a quarrel—a bitter, violent quarrel. Every lover knows these quarrels. They begin over a trifle, and pick up speed with amazing rapidity.

This one ended as they all do.

Hazelle told Jerry to leave her home and never darken the doorway again. She had long suspected him; now she was sure. He was a selfish brute. No girl in her right mind would ever think of associating with him.

Jerry indulged in a few brilliant remarks, which he would have given a million dollars a syllable to retract when it was too late to retract, slammed the door, and departed from Northampton with murder in his heart.

Thereafter no slim figure waved at him from the top of the red-clay cut. He rounded the long curve every second day, doing his regular sixty-five miles, and hoping against hope that she would appear.

She did not appear. Neither did she send him letters. He wrote her a chastened and subdued apology, after which ensued a deep silence.

In the meantime Jerry nearly lost his job. Twice he pulled into Philadelphia thirty seconds late. The superintendent called him on the carpet. His fireman snickered at him unfeelingly.

The final blow came one Wednesday morning. It was the bright, sunny kind of weather that makes a man feel glad he lives, and Jerry had almost come back to normal. He was urging the big Atlantic to her best pace, and Northampton slipped away into the distance like a shadow.

The Cannon-Ball approached the familiar red-clay cut at some seventy miles, and Jerry cast an involuntary glance upward.

Then he felt his heart bob violently twice in a horizontal line, twice in a vertical direction, and once in a complete circle, after which it fell out his anatomy altogether—as it seemed to him.

Hazelle was again part of the scenery. She was sitting on the top of a broad fence, swinging a pair of dainty ankles, and staring at the oncoming Cannon-Ball in a most insulting manner—much as she might have regarded the course of an offensive cockroach across the kitchen-floor.

Beside her, shoulder to shoulder, sat a tall young man wearing a Swiss hat from which protruded a "sassy" green feather.

He probably wore other garments at the moment, but it is difficult to take in a multitude of sartorial details from the cab-window of a government mail-train that is making speed.

Jerry smothered a large piece of profanity. Then he loosened the throttle another notch and tore through Watervliet at an awful speed.

"I wonder," Jerry mused—"I wonder who that guy is?"

For sixty miles he repeated this mystic phrase, and when, in the roundhouse, Coogan, his fireman, spoke to him respectfully about the leaky state of the injector, he poured a torrent of wrath upon that

surprised individual, and drove him from the cab with harsh words.

Coogan had not noticed the man and the girl. Consequently he could not explain to himself the mental state of his engineer.

But he spoke about it in the Philadelphia yards to Morgan, the turntable man. He also promised himself the pleasure of taking a careful poke at Jerry Skeldon the next time that engineer insulted him without reason.

HAZELLE WAS AGAIN PART OF THE SCENERY.

On Friday Jerry saw them again, sitting on the top rail of the fence, swinging their feet and looking down at him as one examines a flea beneath a microscope.

He choked with rage again, and fought off a wild impulse to push the throttle-valve home, throw on the air, leap from the cab, and reach that fellow with the Swiss cap and the green feather without delay.

It was a blasphemous thought. The Cannon-Ball stopped four times between Cincinnati and Philadelphia—and *four times only*. She took on water for the cavernous cylinders to suck up. There was absolutely no other reason for stopping, unless a glacier came down from the north pole and removed the road from the map.

For another week Engineer Skeldon came through Northampton on time, and every trip brought him the vision of two happy souls on the top of the red-clay cut.

On the following Saturday, as he climbed into his cab at Crotonia, his lips were firm. He spoke no word to Coogan, and that gentleman respected his silence.

If the N. Y. E. and the government could have known what was in Engineer Skeldon's mind, another engineer would

have pulled the Cannon-Ball out of Crotonia.

It was a crisp, breezy morning. He could see miles down the track. As the heavy train sang into Northampton and out, Jerry leaned a bit farther from the cab and glued his eyes to the clump of trees behind which lay the red-clay cut.

They were there, sitting on the fence, as usual.

Then something absolutely unprecedented happened to the Cannon-Ball Limited Mail.

Jerry Skeldon threw on the air with a violence that jerked the mail-clerks off their feet, launched the conductor out of a peaceful doze in the last coach, and horrified Fireman Coogan into a state of open-mouthed amazement.

The Cannon-Ball grunted and screamed as the brake-shoes clutched the flying wheels. In thirty seconds she had stopped. Then she began to back up slowly, and Coogan heard Jerry yell:

"Take the throttle, Coogan. Stop her in the cut."

The fireman had a brief vision of his respected engineer leaping from the steps of the cab. Jerry disappeared instantly, and the numbed Coogan stepped into his seat and brought the Cannon-Ball slowly to a halt.

So this was the Cannon-Ball Limited Mail, was it, Coogan communed, stopped in a cut while its engineer went picking daisies and huckleberries? Coogan was no man of imagination. He didn't know what to do under the circumstances, so he didn't do anything. He sat on Jerry's cushions, gaping about. The mail-clerks threw open their iron-barred doors and jumped to the ground.

The conductor rushed up from the last coach, panting, and demanded to know, by the name of the great San Wack, what it meant.

Where was Skeldon? The Cannon-Ball was behind time!

Down in Coogan's soul the spirit of loyalty stirred. They could curse and revile Jerry Skeldon, but Jerry Skeldon was not the man to leave his train without reason. They must wait for him, Coogan announced.

He would return presently, and the Cannon-Ball would make up the lost time. Fifteen minutes were used up in a jawing-match in which every clerk on the mail participated, and in which the conductor lost his power of speech completely and took to meaningless sounds.

Finally the general offices of the N. Y. E. were in a tumult. Watervliet had wired the pleasing information that the Cannon-Ball was fifteen minutes late and had not yet whistled.

"She's wrecked!" lamented the general offices.

The Cannon-Ball was not wrecked. She was standing placidly in the red-clay cut six miles east of Northampton, like a domesticated cow. The smoke oozed peacefully from the mouth of her blunt stack, and the steam whispered in the cocks. All was calm.

And in the meantime her trusted engineer was making history. When he jumped from his cab and hopped across the culvert he turned toward the low ground that led up to the crest of the cut, and in a few minutes reached the top of the embankment.

Two persons were disturbed immediately. The girl saw Jerry coming before her comrade was aware of the overalled, grimy-handed, oil-stained engineer. She slid down from the fence. Jerry kept his eyes fastened upon the insulting green feather in the Swiss hat, and as he approached on the dead run the feather became more "sassy."

Its wearer was a tall, healthy specimen of manhood. He turned in time to meet Jerry's onrush, so that there was nothing unfair in the attack.

Hazelle emitted one piercing shriek, and then stood, wide-eyed, with her knuckles buried in her white cheeks.

Jerry weighed, perhaps, a hundred and sixty, and his antagonist was twenty pounds heavier. But the engineer was wire and muscle, and it was an even match—and a good fight to see, if Hazelle could only have appreciated it.

"Now fight!" hissed Jerry into the stranger's ear; "and fight your best, because I am going to do you within an inch of your life!"

For fifteen minutes the two circled on the top of the cut, swaying in each other's grasp at times, and again falling back under a rain of blows.

Jerry landed a scorching right to Swiss Hat's jaw, and Swiss Hat smeared Jerry

with a curling sweep that peeled away two inches of outer skin and filled the engineer's eyes with water.

Jerry smashed in a straight punch to the nose, and followed with a left to the ribs. Swiss Hat doubled Jerry with a right to the stomach, and Jerry closed his foe's right eye with a left hook.

In twenty minutes both gladiators had begun to weaken. They were drawing in their breath in great sobs, and the perspiration and blood mingled and ran down their faces in thin streams.

Twenty feet away Hazelle Hoisington stood speechless.

Jerry finished the fight suddenly with two crashing blows and a right-hander to Swiss Hat's face that toppled him forward. As he lurched into Jerry's arms he was met with a terrific left-hand swing to the jaw that sent him to the ground.

He lay still.

Jerry turned to the girl, pulling at his handkerchief.

"You — go — home," he gasped. "You made me do this; and to-morrow I'm coming up from Philadelphia and get you. I'm sorry to have mauled your friend. I don't know him. You tell him if I ever hear of his being with you again I'll give him worse than he got to-day."

Hazelle had begun to weep. The tension was ended. She turned to go.

"Here," said Jerry, stepping toward her, "kiss me to show that you've forgiven me. And kiss me on the left eye, because it's the only place that won't hurt."

She hesitated for an instant, but his arm was around her.

Then she picked out the uninjured eye and kissed it lightly.

"Where is your train?" she asked.

"It's waiting for me in the cut, and I've got to go. I'm an hour late." He looked at his watch. It was smashed and useless.

BOTH GLADIATORS HAD BEGUN TO WEAKEN.

"To-morrow," he said. "Remember!"

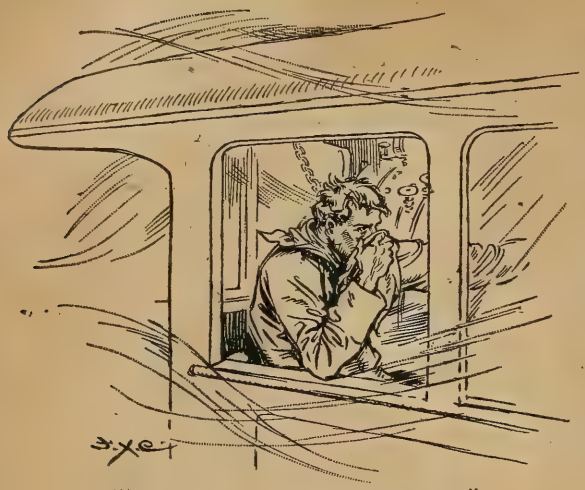
"Poor Jim!" she whispered, looking at the vanguished. "I never intended that things should go this far."

"You might as well bring him back to life," Jerry muttered. "I've got to go. Tell him to keep his hands off hereafter."

He started on a run. At the bottom of the cut he turned and waved a blood-soaked handkerchief.

She waved back at him briefly. Then he disappeared.

Ten frantic trainmen grabbed him and hurled him into his cab.



"HE'S A PIPPIN ON THE UPPER CUT."

"This," groaned the conductor, "is the end of you and me, and the ruination of the Cannon-Ball. We're an hour late."

"Shut up!" said Jerry.

He pulled the throttle open, and the Cannon-Ball moved forward. Coogan was staring at his battered face, but asked no questions.

There was no possibility of bringing the train into Philadelphia on time.

The lost hour would cost the N. Y. E. $600, if there were no more delays, and Jerry would be discharged in disgrace.

There was no excuse to be offered. He realized it as he sat in the cab with his handkerchief pressed to his swollen nose.

"He's a pippin on the upper cut," mused Jerry.

Four miles beyond Watervliet lies the Kingston River. It is not a dignified, sensible river, running guardedly between its banks; but, rather, it is a senseless body of water, aimless, futile, seven inches deep and two miles wide. The N. Y. E. had built a trestle across this two-mile stretch of swamp and had guarded the railway approach with four kinds of safety signals.

All of them were working as the Cannon-Ball thundered up the long incline. The trestle was burning grandly and effectively!

Four of the central spans had disappeared into the swamp in fiery cinders, and Jerry Skeldon stopped his train fifty yards away, and breathed a long, deep breath.

A burning trestle is not, technically speaking, an act of Providence; but it is almost that. No train in the world can pass over a burning trestle, especially when four of the spans have disappeared. The government could not collect from the N. Y. E.

In three hours a relief-train had been rushed forward under special orders. The mail-train was ordered back to Whitehouse, where the N. Y. E. connected with the Western Pennsylvania, and a train-load of mail arrived in Philadelphia later on, twelve hours late. Skeldon was saved.

The government read the N. Y. E. report and growled, but it said nothing.

In the superintendent's office that stern official looked at Jerry's bruised face.

"Get that mug at the Kingston trestle fire?" he asked sharply.

"No," replied Skeldon truthfully, "I got it somewhere else along the line. How would you like one to match it?"

FIRST FLORIDA CONDUCTOR.

CAPTAIN J. R. TUCKER, who got his final clearance papers in this world a few months ago at St. Petersburg, Florida, is said to have been the first conductor to run in that State. He was born in South Carolina in 1835, but his parents went to Florida when he was a child.

His first railroad experience was as conductor on the first train of what is reported to have been the first railroad in Florida. It ran from St. Marks, on the Gulf, to a point near the Georgia line. At the beginning of the Civil War, Mr. Tucker resigned as conductor to raise a company of cavalry, and he served throughout the war on the side of the Confederacy.

After the war he returned to railroading, and was still in the service when he reached his seventieth year, when he was pensioned by the Atlantic Coast Line. The captain's death was unexpected, as, in spite of his seventy-four years, he was hale and active.

Told in the Smoker.

BY OLIN CRAWFORD.

The Things that Happen to the Captains of the Grip in the Day's Run Are as Varied as the Lines of Goods They Sell, and as Exciting as Some of the Stories They Tell.

"Doc" Pants for Pants.

"IF all the tough experiences in sleeping-cars I ever heard of, the case of 'Doc' Hough was about the worst. I guess some of you fellows have heard of the 'Doc,' who got his title selling patent medicines before he climbed up into the shirt trade. He blows in here now and then. Big, fat man, with chin whiskers and glasses."

Frank Pomeroy was the story-teller. Frank travels after the wholesalers for a Brooklyn woolen factory. He was the center of a group of loungers in the story-tellers' corner in the lobby of the Broadway Central, that oasis in the wholesale district where the traveling salesmen gather by hundreds when the ending of the road season brings them trooping back into New York.

"The 'Doc' had only just blossomed out as a shirt seller, and he'd togged himself up regardless for his first trip. New clothes from dome to ground—gray derby hat with a bow in the back, sporty suit in checks, red waistcoat, and a fine outfit of neckties and fancy shirts. You'd know somebody was coming, to see the 'Doc' headed your way.

"At the Grand Central he got on a train for Buffalo, which was to be his first stop, tucked himself away in a lower berth and slept like a log till they rolled into the Buffalo yards. As he groped around for his clothes he couldn't find his trousers into which he had stuffed his watch and all his money.

"He rang the bell for the porter and asked him to help in the search. Together they groped around under the seats, through the bedclothes, and all over the car, but there wasn't a sign of trousers, money, or watch.

"Of course, 'Doc' got mad. Wouldn't anybody? He broke into some fiery talk and swore he'd have justice if he had to carry the case to the United States Supreme Court, and tore around until the conductor came and tried to pacify him.

"By the time they got into the sta-

tion the whole train had been searched for a pair of trousers, and the only pair that could be found that weren't in use belonged to the chef in the diner, and were so small the 'Doc' couldn't get into them at all. If he had they'd have fitted him like a pair of tights.

"The conductor was for putting him off, considering he didn't have a ticket any farther. That made him madder than ever.

"'Without any pants on?' he yelled. 'Not in a thousand years! I'll stay where I am till the railroad buys me a pair. Think I'm going to walk up Main Street, Buffalo, without 'em? What do you think I am?

"'I stay right here till I get a pair of pants, and that goes!'

"Well, the conductor thought it over, and as it was about starting time, concluded to carry him on free for a while, for he didn't quite like the idea of leaving a man with so little clothing on a platform.

"The train rolled on westward, and the 'Doc' stayed cooped up in his berth with his knees drawn up to his chin, thinking hard. Along comes the conductor, peeks in at him, and says: 'I don't want to interrupt your train of thought, but the farther on you go the farther back you may have to walk, and if I were you I'd get out.'

"That was too much for the 'Doc.' He stuck his head out through the curtains, with fire in his eye, and hissed through his teeth some language so red hot that he wasn't bothered any more with suggestions. He hadn't had any breakfast, and he was ready for anything next to murder.

"After a while he began to hunt through his vest and coat to see if he couldn't scare up some loose money, and he came across a two-dollar bill that he had tucked away in a pocket and forgotten.

"That made him feel better, and he called the porter and asked him if he couldn't get him something to wrap around his legs so he could get off at Dunkirk, the next stop, without being arrested.

"'What's the matter with letting me have your pants?' says the 'Doc.' 'If you will I'll send you ten dollars.'

"'What! And me go pantless roun' this heah car wif ladies abo'd! Not foh me, boss.—But I'll get yo' an ole blanket.'

"So, when they got into Dunkirk, the 'Doc' picked up his grips and, with the blanket wrapped round his legs, got out and headed for the nearest clothing-store, with a crowd of kids at his heels. On the way he did some lightning calculating. He felt that he couldn't hold out any longer without something to eat, and, saving out the price of a ticket to Buffalo, he would have only seventy-five cents left for trousers.

"If he could get a pair for that price he could get back to Buffalo in time to hunt up a friend who lived there who would lend him money, and to see his customers. But the best he could get for his money was a pair of blue overalls that fitted skin-tight and didn't come down to his shoe tops.

"With his gray derby, red waistcoat, checked coat and skin-tight, short overalls he blew into Buffalo, with a grim and determined expression on his face and looking as if he'd just stepped off a vaudeville stage. And there he got another shock. His friend was away and wouldn't be back till night, and he didn't have any time to spare before getting after customers.

"What did he do? Why, he went around to see the trade just as he was. And he made a big hit, too. He couldn't help getting a hearing everywhere, togged out like that, and his tale of what he'd been up against put everybody into such good humor that they gave him good, fat orders."

Frank Gets His Man.

ANOTHER sleeping-car misfortune that had a less profitable ending, though it deserved a better one, considering the ready wit displayed, was that of Frank Peebles, a traveling salesman for a Chicago shoe-house.

He had hoped to get a large order from a retail house in Philadelphia, but was disappointed. The head of the concern, who himself looked after the replenishing of stock, was out of the city and wouldn't be back for several days.

The following night, Peebles was a passenger on the Pennsylvania Special that jumped the track and tumbled into the river near Conemaugh a few years ago. At the time of the accident he was sound asleep in a lower berth. He was awakened by a crash and the violent plunging of the car.

They were rolling down the steep embankment into the river, and it seemed to Peebles, as he was battered against the walls of his berth, that the car was turning over and over. A man was pitched out of the berth overhead, and, breaking his fall by clutching the curtains on the way, landed in a heap in the aisle, directly on top of Peebles, who at the same moment had been tossed out of his own berth.

They both lay there for a moment, too much startled and bewildered to stir. The salesman was the first to pull his wits together. Glancing up into the face of the passenger who lay sprawling over him, he made a discovery.

"Why!" exclaimed Peebles, "you're the man I was trying to find in Philadelphia. I want to show you the finest samples in the shoe line you ever saw."

Did he get a fine, big order? He did not. That was one of the times when a brilliant display of business genius went unrewarded. The man on top of him was a serious-minded, sanctimonious old fellow who didn't believe in talking business in such a crisis.

"The young man who will attempt to sell shoes in a tragedy of this kind," he said, "does not deserve to be encouraged. You ought to be thinking about helping the wounded instead of your own selfish interests."

The Girl Who Loved Diamonds.

JEWELRY salesmen, more than any others, are likely to have some stirring adventures in their travels. The men who go out from Maiden Lane are always worrying on the road over the danger of thieves, and a live and pressing danger it is. One of them, Charles Bellinger, started out from New York to Chicago on a New York Central train, a few years ago, with diamonds worth $80,000 in his wallet.

At dinner, as the train rolled along the Hudson, he was seated at a table in company with a distinguished-looking, elderly woman and her extremely pretty daughter. He fell into conversation with them, and it came out that the two were on their way back from Europe to their home in the West.

Then it developed that the girl had been a classmate in college with Bellinger's niece. During the conversation Bellinger chanced to bring out the fact, which he didn't often do with strangers, that he was a salesman for a jewel firm, and they began to talk about diamonds, a topic in which the girl showed the liveliest interest.

"They have such an uncanny fascination over me that I hardly dare look at them," she said. "I think there's witchery in such stones."

On his return to the sleeper he observed that the mother and daughter had berths in the same car as his own.

When it came bedtime, he pulled out his wallet of stones and put it under his pillow, as was his custom. That is where nine diamond men out of ten stow their gems at night. Then he crept in and was soon sound asleep.

Long afterward he was awakened by a movement of the curtains. He lay perfectly still, with his eyes half open, watching. From between the curtains something was stealing in upon him, very slowly and cautiously.

Bellinger waited for a moment, then grabbed for it and caught it. It was a girl's arm.

There was a little stifled scream of fright, a pleading whisper, and Bellinger looked into the face of the pretty girl who had told him diamonds had such a wonderful fascination over her.

The pitiful look of fear in her eyes and the thought that perhaps, after all, she had been a college friend of his niece, decided him. He let the arm go. And the next morning at breakfast she met him with a bow and a smile as if nothing had happened.

A few weeks later Bellinger got back to New York and looked up his niece. He described the girl he had met on the train and gave her name.

"Why, yes," exclaimed the niece, "she was in my class in college. She had an

unpleasant experience there, too. Somebody accused her of stealing some jewelry from a room in the dormitory. Then it turned out that her father had embezzled some money out West a few years before, and people were mean enough to hint that she had inherited his thieving instincts. They couldn't prove anything against her and she couldn't have been guilty."

Her uncle dropped the subject. A year or two later there was a scandal in high life over the disappearance, during a house-party in Chicago, of a diamond pendant. It was found in possession of a wealthy young woman who had been a guest at the affair. The theft was attributed to kleptomania, and she was not prosecuted. It was the same girl.

Ludwig's Thief.

LUDWIG NISSEN, one of the largest wholesale jewel dealers in New York, used to travel for a diamond-house. One night, just as in the case of Bellinger, he was awakened in his berth in a sleeping-car by a hand stealing under the curtains.

Under his pillow was a large fortune in jewels and he was wide-awake in an instant. The hand disappeared. He pulled aside the curtains and sprang out into the aisle, but nobody was in sight.

"I'd like to warn everybody in this car that there is a thief on board," shouted Mr. Nissen.

Then he crept back into his berth and went to sleep. He knew there would be no more danger, with the thief scared and all the other passengers nervous and on the watch.

An Inspiration in Hats.

"IT takes a good, big inspiration to get around the stubbornness of some customers when they make up their minds they don't want to buy," said Charles Schaeffer, who sells men's hats to the wholesale trade.

"There was old Schwartz out in St. Louis, for instance. He was as hard to budge as a stone wall once he'd made up his mind he didn't want anything. But I did change his mind once. I'd blown into his city with a pretty fine line of goods and big expectations, and it made me sore when he turned me down.

"'You might just as well not waste your time with me,' says he. 'I'm not buying a thing.'

"At last I managed to induce him to come around to my hotel to look at my samples, though all the way there he kept telling me that I was wasting my time, for he wasn't going to buy. When we got there I pulled out some swell Javas that I thought might fetch him, but he kept curling up his lips and saying, 'Pooh! Pooh!' at everything I had to show.

"He was glad to stay to dinner with me, though, and it was while I was ordering the eats that I got my inspiration. A comic-opera company was spending the week in that hotel, and one of the members of it was a man named Cramp, a school-day friend of mine.

"Catching sight of Cramp out in the lobby, I got after him, leaving Schwartz sipping a cocktail. It took me about five minutes to fix up the scheme, and I got back to Schwartz just as the steak was coming on.

"Pretty soon I noticed that something out in the lobby had caught the old man's eye. Then in came Cramp wearing one of my Java hats. He was a swell-looking boy, Cramp was, and the hat was particularly becoming to him. I could see that the old man was impressed.

"Another minute another handsome, natty, comic-opera man passed by with the same kind of headgear, and after a while two more with my Java hats—as fine-looking young fellows as you could find. And all the time we were eating they kept hovering around where Schwartz could catch a glimpse of them now and then.

"He'd never seen any hats just like them before, for they were a brand-new line, and while he ate his dinner the idea began to soak into his mind that they were a fad that was coming in with a rush.

"'I don't know but I'd like to take another look at those Javas,'" he said

when we'd finished. And he wound up by giving me a ten-thousand-dollar order. I guess he was sorry afterward that he did, for he had hard work getting rid of that lot.

"Next time I meet him he looks at me out of the corners of his eyes and says, 'Charlie, it's a funny thing to me that everybody seemed to be wearing those blamed Javas the night I bought 'em, and that I never saw another before or after.'

"'Well, you know fashions change quickly,' I told him."

Tom's Misplaced Gallantry.

TO turn to a more romantic subject, a story told by Max Kaufman, the road man for a Bond Street clothing-house, goes to show that a man is wiser not to force his way into other people's troubles. "That was what Tom Hennessey was convinced of, anyway," said Kaufman.

"Tom had as much of an eye for the ladies as any man on the road, and it was always getting him into trouble. One time he and I were on the same train on the Michigan Central, bound for Detroit. There was a dapper young Frenchman in our car a few seats ahead of us, and just across the aisle from him was a good-looking girl with yellow hair.

"Pretty soon Tom got the notion that the Frenchman was annoying the girl by trying to flirt with her, and he got madder and madder about it till at last he got hold of Frenchie in the smoker and told him what he thought of him.

"I've been told Frenchmen couldn't fight. But, say! You ought to have seen that one! Most peculiar scrap I ever saw. I don't know whether he was carrying out the methods of his country or not.

"I understand most of 'em use their feet over there. But he didn't. He used his teeth and his finger-nails. And maybe he didn't do some damage. Why, Tom looked as if he'd been tangled up in a mowing-machine when that Frenchie got through with him. Tooth and finger-nail marks all over him.

"He pretty near choked the life out of Frenchie to even things up, but there wasn't much satisfaction in that, considering it would take him six weeks to look respectable again.

"But the worst of it was that Frenchie got the girl, after all. And you ought to have seen Tom squirm when he caught one of the disgusted looks she kept throwing at him. Being chivalrous to ladies didn't appeal to him for months."

HOW HAIGHT WON HIS MEDAL.

IT is a trite observation that work on a railroad nourishes courage. Grit and daring is a characteristic of railroad men. Charles W. Haight, of Utica, New York, is a good illustration of the cool-headed engineer, who stepped out of his cab to the pilot and picked from the rails a three-year-old child, who was about to be run down.

For doing this Haight got a medal from President Roosevelt, under an act approved by Congress, February 25, 1905.

Haight is of stocky build, about five feet eight inches in height, and weighs 190 pounds. He is about forty years old. He talks with a snarl, but that "is just his way."

Haight distinguished himself near West Winfield on April 26, 1905. Not far from the railroad near that village stands an old house where a family of people lived. They had a large family of children, and the railroad men who traveled that road were familiar with the place, for the children were often seen at play about the house and near the crossing. Such a place enginemen and firemen watch pretty keenly.

Haight saw three of the little ones on the track. His train was going at a good rate, he put on the emergency, but there was no hope that the train would stop before the children were reached.

He leaped through the cab window, slid along the boiler to the pilot, and, reaching forward, gathered into his arm the three-year-old youngster who stood bewildered upon the track. Two older children, in the meantime, had run from the track. Haight was not injured, nor was the child hurt.—E. A. S.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 24.—The Brief Chronicles Touching on the Ups and Downs, the Ins and Outs, and the Rise and Fall of a Con Who Rejoiced in the Name of "Jackdaw."

THIS brief chronicle touches a few of the high points in the career of one J. D. Williams.

"J. D." had raven hair and more than human friendliness, so we abridged his given name to the more euphonious and appropriate appellation of "Jackdaw."

He will answer to that convenient call all the days he remains on the railroad; for no man ever draws a nickname on a railroad and lives long enough to part with it.

Once upon a time, a great many years ago, I worked in a railroad office with Jackdaw.

Heaven bequeathed to Jackdaw a playful, kittenish disposition. The office was to him what the spring-morning meadow is to the lambkin, or the barnyard is to the month-old calf.

Existence to Jackdaw was a constant round of frolicsome gambols, foolish quips, jumbled songs, and hodgepodge whistling, until all of us grew weary of his presence and longed for him to be removed, either quietly to some other department, or from the face of the earth—we did not care which.

It is a painful and disturbing thing to be constantly associated with a man who is chronically funny.

Not a real humorist, understand, for a humorist is often the saddest and most silent of men; but one who bubbles over all the time, who finds every trivial incident the source of explosive "Ha-ha's!"

One who profanes everything sacred with his hilarity, and whose rude jollity has no respect for the feelings of others.

One who butts in with witless and irrelevant observations, who holds you long, who inflicts you with pointless jokes, and tells you stories that have no beginning, no end, and no substance.

You find this type everywhere. And it is no surprise that one of a number belonged to the working force of our station.

Jackdaw had a sort of foolish cheerfulness; a certain irrational, impromptu, ill-governed gaiety that irritated the rest of us. For, like all clerks, we were serious-minded and solemnly impressed with our duties.

Disease, death, and disaster had no terrors for Jackdaw. He attended a wake or funeral with liveliest zest. With a breezy disregard, he bumped into all the misfortunes that befell. He knew neither sorrow, sigh, nor a regret.

He was so persistently and boisterously funny, so inappropriately good-natured all the time, that he made us weary and sick of him.

We dissected the fellow in this wise: that he had a good digestion, and, therefore, felt physically fit and fine. Furthermore, we put it down, and, by unanimous consent, that, in the haphazard chances of birth, Jackdaw had been short-changed on brains. Therefore, he did not know, and could not know, and never will know, what a nuisance he is to others, constantly running his joy machine high-gear and without governors.

One summer afternoon Jackdaw had an old car, loaded with bone-fertilizer, placed in the material-room of the canning factory, and all the girls walked out.

There was no engine to take the car out until the following morning, and, in the meantime, the idiot actually laughed his head off over the joke.

This is figurative speech. His head did not actually come off until the following week. Then it came off neatly and effectually, and that made the whole affair such a capital joke that all the rest of us let out an exultant laugh in a long, loud, raucous chorus.

The routine of the work settled down to a decent calm, and we had less exhilaration, but better results.

In the office, we forgot Jackdaw as speedily as possible. His landlady made numerous inquiries about him, likewise a tailor, likewise a laundryman, likewise a florist, likewise a—but what's the use?

Let all that pass. Jackdaw was but a memory which faded like the crimson bosom of a fifty-cent shirt.

One hot day in the following summer we were digging away at our desks, buried in a rush of work, when a head thrust in at the open window, and a mocking, jarring voice saluted us:

"Bend to it! Grind away, you slaves! Mush on!"

It was Jackdaw.

He had run down to the station from a freight-train on the siding.

"I didn't know any better for a long time, either! Lean over there! Hollow your chests a little more! Strain your eyes! Come back after supper! Be here

"BEND TO IT! GRIND AWAY, YOU SLAVES! MUSH ON!"

Sunday! Stay with it! Heave to! Altogether now!"

This deriding taunt drew the duster and a cake of soap from the interior, but Jackdaw ducked, and slid back to the engine. He had become a brakeman.

We never knew how he got on, or how he remained after he got on, but in time he became a conductor.

Then we all paused long enough to again recall memories of Jackdaw, and to speak the wonderment that possessed us of how it was possible for any one with a thought ganglion no larger than a walnut to be trusted with the responsible duties of handling a train.

In reality, we should not have marveled at this. For, when the personnel of an organization, either railroad or industrial, is well known at close range, the same wonderment intrudes itself that there are so many featherweights all the way up, and now and then capping the top. How they got there, and why they remain, puzzle the underling.

But back to Jackdaw.

We knew he would be fired soon.

We knew exactly how foolish and light-headed he was. The most generous estimate of our office gave him but six months.

Jackdaw got into trouble a number of times, and was on the carpet with some regularity; but it is the caprice of the Fates to protect a certain brand of mankind known as the fool. Jackdaw got through his first year with some scares and a few scars. Then we kindly extended his limit to another year.

That was before the days of tonnage and freight classification in the yards. Trains, not so many as now, came in with mixed loads, and went out much the same way.

All that was asked of a conductor was to have his bills in rotation to correspond with the cars from the engine to the caboose.

Jackdaw had a green brakeman — a Dutch boy.

By and by, they took the siding out in the country to meet another freight-train.

When they were in the clear the Dutch boy picked up the bills and accidentally dropped them on the caboose floor, badly disarranging them.

Jackdaw came down with a furious explosion.

"Look what you've done!" he cried. "Got them bills all mixed! Now we've got to git out and switch this train all over again to git 'em in order. You got to be careful when you handle bills. Look at the trouble you've made us! It'll take over an hour—"

Jackdaw actually sent the Dutch boy over to see the engineer, and explain that the train would have to be made up again.

In a little while the new brakeman came marching back to the caboose.

"What did he say?" demanded Jackdaw fiercely.

"He ses, you switch dem bills!"

"Did he?" yelled Jackdaw. "Wait till I git up there! I'll tell him a few things."

At the office we could not decide if Jackdaw was playing a joke on the Dutch boy, or if it hadn't occurred to him to switch "dem bills" until the engineer mentioned it. Judgment suspended.

Anyway, Jackdaw went overhead and engaged the engineer in talk.

The engineer was making some repairs to the engine. He had crawled under it, when the Dutch boy, impelled by a lingering curiosity over the affair, came up.

"Go back to the caboose," said Jackdaw hurriedly, "and get that iron frog under the seat. We've got to have it to fix the engine. It's a little heavy, but you can tote it all right. Hurry now!"

The Dutch boy trotted off, and in time came lumbering back with one of those old-fashioned iron frogs.

Just as he reached the tender the engineer came crawling out from under the engine.

"Never mind, now," said Jackdaw. "He's got it fixed, so you can take it back to the caboose. Hurry! We're going to git out of here in a little bit."

The Dutch boy struggled slowly back past twenty cars, staggering and exhausted under the heavy load.

That was merely Jackdaw's playfulness. They did not need the frog at the engine; but in those rollicksome old days all green brakemen were put to stunts of that kind.

Old heads recall, in their early days, of fruitless quests from yard-office to

roundhouse and storeroom for the elusive "left-hand monkey-wrench," "square circles," and other legendary bric-à-brac.

After a day or two, by the Dutch process of percolation, a thought entered the head of the new brakeman.

"What for," asked he, "I carry dat frog back? Why didn't you wait till the caboose come oop and den put it on? Eh?"

"By George, that's so!" exclaimed Jackdaw. "We could have done that. We'll remember that next time, Germany."

The Dutch boy was not assured. He thought it over with native persistence. "By *Himmel*," he exclaimed at length, "you make a monkey of me mitt a frog!"

With this conclusion the incident closed.

Some time later, Jackdaw took a passenger on at a way station, bound for Chicago with a car of cattle.

Shipments of cattle are usually accompanied by an attendant, who rides in the caboose.

To this one the caboose, the train, and the scenery were all objects of open-eyed wonderment. He was fired with the liveliest interest, and asked Jackdaw a string of questions about each village, side-track and water-tank. He was so verdantly innocent and curious that Jackdaw began to spin "Arabian Nights" yarns.

"See that house over there," explained Jackdaw—"that log hut by the woods? The Jesse James gang surrounded that one night and robbed an old miser that lived there of a million dollars! See this little town we're passing through? Ain't much here any more but the sawmill and a few shacks. Abe Lincoln was brought up here, and worked on the section right where you're riding until they elected him President.

"See that derrick over there? Thought it was a windmill, didn't you? That's where you git another guess. That's the first oil-well John D. Rockerfeller ever dug! Right there's where he got his start. Dug this 'un with his own hands, too, and begged his tobacco, while he done it, of that old man that lives in that shanty there!

"See them thickets, and that creek winding around down there? That's where Roosevelt comes every year to hunt rabbits. He ort to be there now. This is his time.

"By George, that's him! See that fellow over there by the underbrush?" Jackdaw pointed excitedly. "That's him,

"GOT THEM BILLS ALL MIXED! NOW WE'VE GOT TO GET OUT AND SWITCH THIS TRAIN ALL OVER AGAIN TO GIT 'EM IN ORDER."

surer than thunder! Bill Bryan taught school in this town we're passing through until the year sixteen-hundred-to-one, I think they say. Then he went to Nebraska."

The passenger seemed so blissfully ignorant, and was so importuning in his curiosity, that Jackdaw finally grew weary and decided on another venture.

"'Say, Germany," he said on the side to the brakeman, "let's have some fun

THE PASSENGER WAS CURIOUS.

with this fellow. You tell him to watch me. Tell him I have fits. Tell him I fall over and have crazy spells, and for him to keep his eye on me, as I might do an awful lot of damage.

"Tell him, if he happens to be alone when one comes on me, to get outside quick and hold the door shut, and keep yelling as loud as he can till some one comes. You clear out, and I'll have one of them convulsions. I'll scare him out of his boots!"

Soon Jackdaw went overhead to give the Dutch brakeman a chance to caution the passenger.

Somehow, the memory of how Jackdaw had him carry that iron frog from the caboose to the engine and back came to him, so he told the passenger this:

"That conductor's a fool. He gits fits sometimes. If I don't bin here, you want to watch out for him. Maybe he lay you out with a poker. You watch him, huh—purty close."

"Say, don't you go away," protested the passenger.

"But I got to be out some," the brakeman explained. "But I tell you what you do. If he start to have a fit, you haul off and hit him between the eyes — hard as you can drive. That's what I do. That's what he wants done. It jars up his nerves. Then he comes out of it, and quick, too. Don't be afraid. Shust hand him a good one. He's ust to it. If you don't, he might kill you and himself, too. The quicker you land on him the better."

When Jackdaw returned the Dutch brakeman passed him the wink, then went out on top a few cars away and sat down on the running-board to await developments.

The passenger was curious, but sat in silence. He watched Jackdaw nervously.

All at once, Jackdaw stiffened out with a sort of paroxysm. He fixed his eyes with a strange, hard stare on the passenger. He clutched at his hair with both hands, and let out a series of blood-curdling yells like a hostile chief. He followed with a few rigid convulsions, then commenced kicking and striking in a blind frenzy, and edging over toward the passenger.

At this moment, all calculations went wrong. Jackdaw's lights went out. There was a sound in his ears like the ringing of a blacksmith's anvil; the circumjacence was filled with dancing moonlets, and Halley's comet passed so close that he heard the swish of its tail.

They poured a gallon of water on his head, and let it trickle down his spinal column.

"How many was killed?" he asked faintly, as he began emerging from the tunnel.

"You're the only one that's hurt," answered the Dutch brakeman, who appeared immediately after the catastrophe.

"Seventy-eight hit us, didn't they? How many cars did they smash up? Has the wreck-train been called?" Jackdaw was growing stronger. "They hit us an awful smash. He must 'a' been turnin' 'em some. I remember it now. I went up through the caboose and come down in that sheep-pasture, didn't I? My—skull's—crushed in—ain't—it?"

"You been all right, purty quick now," assured the Dutch brakeman. "Dey ain't been not'ing wrong. You shust had one of dem fits. You better lay down on de seat a little while and den you be all hunky!"

Jackdaw stretched out as directed and emitted a series of groans on unsympathetic ears.

The Dutch brakeman handed over his tobacco to the passenger. It was the only token of appreciation he could think of.

The passenger grinned and rubbed his "village-blacksmith" knuckles.

"It worked bully, aint it, eh?" said he. "One biff, and I bring him out of it. Dat's quick medicine, by Jacks! I never hears of that before."

In course of time the walnut lump between Jackdaw's eyes diminished in size until it disappeared altogether, and, so far as I know, the antidote supplied by the simple-minded stockman cured him for all time of those sudden violent spells.

In the office we continued to wonder how Jackdaw held on. We had graciously allowed him five months, then a year, then two; but he seemed to come to no bad end. Our force scattered. New men came. The old ones were transferred, dismissed, or died—but Jackdaw was still running a train.

It had been the unanimous verdict of our office that Jackdaw was a fool and a failure. It hurt our pride and reflected on our judgment that he kept right on every month drawing a better salary than any of us.

By consulting the blue-print of Jackdaw's career, which went into the future only a short distance, and which reflected largely on his past performance with us, and was drawn by the master minds of our office, Jackdaw should be off-bearing in a sawmill, or responding to some bricklayer's sharp call for "mort."

Soon we heard from Jackdaw again in another rôle.

Very early one morning he received a message from the superintendent to stop at San Piere, a way station, and pick up three lady passengers for Monticello, which point they wanted to reach for an early morning connection on another road.

Jackdaw stopped, and politely helped them aboard the caboose.

They were visiting delegates to some sort of woman's club or association that had held a district meeting and "high doings" at San Piere the day and night before.

Years ago it was a common thing for

"HOW MANY WAS KILLED?" HE ASKED FAINTLY.

a freight-train to receive orders to carry passengers between local stations. The superintendent was appealed to daily by stranded or belated passengers, and he usually "came across" with the desired permit.

The practise was greatly abused, and often led to serious complications, so that now it has been almost entirely discontinued.

In functions of this kind, Jackdaw was obsequiously polite, and with it—being a fool—he injected his brand of ceaseless and pointless conversation, which, like the woodland brook, never stops.

The ladies were hardly seated in his caboose when Jackdaw began entertaining them with side-lights on the life of a railroad man.

He told them of its hardships and privations. How for six months he had not sat down at the table with the "dear ones at home." How, every minute, he expected to be killed and taken back to them, mangled and unrecognizable.

The ladies were ignorant of railroading, and being impressionable and tender-hearted, they let out many ejaculations of surprise and sympathy.

The brakeman was visibly affected, too. He fidgeted uncomfortably in his seat for a while, then let out a half-smothered something that sounded like, "Well, I'll be hanged! Can you beat that?"

Then he slid out, went four cars ahead, and sat down on top to form a picture of Jackdaw at home with the "dear ones." He knew that when Jackdaw had that opportunity, he could be found up to the last minute at Casey's pool-room resort. And as for any accident befalling him—they would have to invent some new processes in railroading first.

One of the ladies noted in a little memoranda-book the salient points of Jackdaw's experiences, and they agreed among themselves that this had suggested to them a broad field of endeavor for the Woman's Club, for ameliorating the working conditions of the poor, abused trainmen.

When Jackdaw had expended himself in this direction to the fullest, and had drawn the last tear and the last expression of surprise, he took another turn.

"You ladies will excuse me," he said, "but I'm going to prepare a little breakfast. I might ask you to take a bite with us. But I wouldn't offer no lady what we have to live on. I wouldn't, mum; I wouldn't, indeed.

"Yes, mum; the railroad supplies the provisions. They call 'em specially prepared rations. But I think it's only to dope us so we won't fall over on duty with exhaustion.

"I'm telling you true, mum; we're fed worse than the Siberian exiles of Africa. The stuff the railroad furnishes us ain't fit for eny human bein' for food.

"But what can we do?" Jackdaw straightened up in fierce appeal. "Suppose we quit, somebody else would run these trains. It might as well be me go to my doom as eny one else!" Jackdaw uttered this with dramatic self-sacrifice.

He poked up the fire in the cabin stove. Then he put on a pan of water, and near it an empty can; then he fumbled around and brought out the dope-bucket. He jabbed the fork deep into it, and held up the oily ravelings.

"Yes, mum, it's true," said he, curling his lip with disgust. "It's the main item of our food supply. It's furnished by the company in buckets. It's the Mexican shredded macaroni in native oils. It's made by Eyetalians in Chenoa, Mexico. I want you to taste it. Then you'll have some idea what it is to be a railroad conductor."

Jackdaw transferred a pound or two of packing from the dope-bucket to an empty can on the stove and set it well back, so that it would not overheat, but simmer gently.

While it was slowly filling the cabin with a nauseating stench, Jackdaw got out a loaf of bread and placed it on a chair. He next brought out the cabin hand-saw and, placing his knee on the loaf, deliberately sawed off half a dozen slices of bread. He did this with a labored, ripping sound, caused by implicating the chair-leg with the bread.

"This is not like the bread my mother used to make," he said with a sorrowful, catch-in-the-back grimace. Then, ruefully: "I never expect to eat anything like that again. They furnish us Macedonian bread, made by pneumatic compression out of Soey beans and cactus-fiber."

Jackdaw stirred the dope and added a little salt.

Then the engine let out a long whistle, and he looked at his watch in quick surprise.

"Goodness me!" he exclaimed. "We're there. This is Monticello. I'm sorry you're not going farther. The caboose will stop right at the platform. Yes, we'll come to a dead stop. Can't be too careful."

"THIS IS NOT LIKE THE BREAD MY MOTHER USED TO MAKE."

If the lady delegates had looked, as the train pulled out, they would have seen Jackdaw part with his morning repast. He grabbed his can of Mexican shredded macaroni before it got any hotter and shied it at a scampering cat trespassing on the right-of-way near the depot.

But in time the superintendent received a long and serious communication from a certain ladies' club. It called attention to the company's barbaric treatment of its trainmen. The road was denounced for its reckless disregard of human life, reproved for not permitting the men to see the dear ones at home, and bitterly denounced for forcing a food supply upon their men wholly unfit for human consumption and "inferior to that which we supply to our domestic animals."

"We assure you, sir," the communication continued, "this fight for better conditions for trainmen, which is hereby undertaken by this club, will be carried to the national body of the Continental Association of Woman's Clubs."

This started something.

There was a neat bunch of correspondence, and it all passed to Jackdaw for full explanation.

It came to Jackdaw under register, so that he gave his receipt for it, and could not come back with the claim that papers did not reach him.

Jackdaw looked the papers over care-

fully, and a certain ominous tone of the memoranda from the superintendent to the train-master led him to the hasty conclusion that he was up against something.

So Jackdaw, with a ceremony of mock seriousness, touched a match to the papers, and the caboose stove did the rest.

The wind was blowing a gale that day, and, a little farther along, Jackdaw deliberately fed his way-bills and other papers to it.

At the next station he sent the following telegram to the train-master:

> High winds blowed my bills and some valuable papers out of caboose near mile post 208 between Raub and Wadena, north side of track. Have section men recover them and send them in on 33.

The section-men got instructions, and, sure enough, they found the bills and some papers. But the correspondence with the Woman's Club was not among them. Strange to say, it was never found, although diligent search was made. Stranger still, there was no resurrection. File numbers and carbon copies were not used so extensively then as now.

Jackdaw congratulated himself on his cleverness in "putting one over" on the officials by means of a blaze, a high wind, and telegram that explained all.

Long, long afterward, I met in the office the clerk who threw the cake of soap at Jackdaw when he bellowed at us through the window to "Grind away."

"S'pose Jackdaw's working in the brickyard by this time, eh?"

"Believe me or not," I answered, "but that fellow's running the package-local right now."

"What?" yelled the clerk.

And another long time afterward I had gone away, and had forgotten the road and all its associations, when, one day, I was a passenger on one of its through trains—nine coaches, and five of them Pullmans.

I handed my pasteboard to a good-looking conductor in a spick, span, gold-braided uniform, and as dignified and correct and courtly as a first lieutenant in a West Point parade. He gave me a look through his gold glasses, and a smile overspread his face.

"Mush on!" he said in an undertone. "Grind away, you slave!"

It was Jackdaw!

Jackdaw, the fool! Our erstwhile wheeler of sawdust. Our carrier of "mort." Our brickyard laborer!

Only "nit."

PENNSY'S STEEL EQUIPMENT.

WHAT is probably the largest steel passenger-car equipment owned by any railroad in the world is that of the Pennsylvania Railroad, which, with the cars just completed and those in course of construction, has six hundred and thirty all-steel passenger-cars. With this large number of steel cars the Pennsylvania Railroad is now to start the operation of all-steel passenger-trains on some of its lines.

On August 12th, 1906, the Pennsylvania Railroad announced that all future passenger equipment would be built of steel; not only steel frame, but steel and non-collapsible in every particular. In planning the cars and establishing the standards, which are now copied in all Pennsylvania passenger-cars, no expense has been spared to build a coach which shall provide the greatest possible strength, a steel framing which can not be affected by fire, an inside lining which is absolutely unburnable.

The Pennsylvania Railroad in November, 1906, ordered 100 all-steel passenger-cars. Since that time, additional orders have been placed and there are now in service on the company's lines 245 coaches, 10 dining-cars, 21 combination passenger and baggage cars, 29 baggage-cars, 18 postal cars, and one company car; a total of 324 cars.

In course of construction there are 140 coaches, 34 dining-cars, 48 combination passenger and baggage cars, 4 baggage-cars, 42 postal cars, 27 mail storage cars, and 11 baggage and mail cars.

The Pullman Company, at the instance of the Pennsylvania Railroad, for the past four years, has been at work designing all-steel parlor and sleeping cars. Some 500 such cars are shortly to be completed.

With the all-steel passenger equipment now in service or on order, and some 250 steel cars to be ordered on the 1910 passenger equipment program, this railroad, in a short time, will have in service about 900 of its own steel passenger-cars.

FORD QUITS "OS"ING.

BY "AS."

The Trouble That Came to a Night Operator While He Was Getting His Beauty Sleep.

"BR, Br," "V," clicked the train-despatcher's wire. Sam Ford, the night-operator at Bryan, lay snugly wrapped in a blanket, with his head near the sounder, fast asleep, or, as he would have expressed it, "pounding his ear."

His call had only sounded twice. He awoke, hastily threw the blanket into the stationary cabinet, glanced first at the clock, then at a memorandum on his table.

Ford, although but nineteen years old, fully realized the importance of handling train orders. Being a light sleeper, he had never hesitated to take advantage of the dulness of the "wee sma' hours" to get some sleep. But, to prevent mistakes that might endanger innocent lives, he always kept an "OS"—a notation of reports of trains passing way stations on his division.

In his hasty glance at the clock and the scratch-pad, he rapidly calculated:

"No. 12 won't be here before 6.30. Cattle extra, 132 north, should be between Navasota and Millican. Excursion extra 212 should be just ready to leave Hempstead."

Operators have to think rapidly; so, with as little delay as possible, he answered:

"I, I, Br."

"31 Cy 3"—train order manifold form No. 31, make three copies—came in solid characters over the wire, and immediately began calling "M," then "D," both of whom answered on the first call.

"31 Cy 3. Order No. 20."

"Br. C & E. No. 12."

"M. C & E. Extra 132 north."

"D. C & E. Extra 212 north."

"No. 12 Eng. 129 and Extra 132 north will meet at College, No. 12 taking siding. Extra 212 north has right of track over all second and third class trains, but will not pass Wellborn before 7.10 A.M. nor Bryan before 7.45 A.M. J.J.D."

Ford, before giving O.K. and repeating orders, always set his signal. His signal-lamp, however, had become damaged so that even a light breeze extinguished it, and ordinary lanterns were being temporarily substituted. A white one stood on the signal-lamp platform, which extended from the telegraph-office on the second floor to within plain view of the track. When a train was to be stopped, this was taken in and replaced by a red one.

Ford now made this change, repeated the order, glanced out of the window to be sure the danger-signal was properly placed and burning, noted the reports of these trains on his list, and got out his blanket for another nap.

"It is now 4.45. No. 12 won't be here for an hour and a half at her best. I'll get enough sleep now and stay up after breakfast and ride my bike over to College and see the little stenographer," he mused half aloud.

Ford awakened with a sense of something wrong, and found it was broad daylight.

Going to the window, he was just in time to catch a glimpse of the conductor waving him a kindly greeting as the caboose whizzed by.

Horror-stricken for a moment, he muttered:

"What is the matter with old Collins on 129? Is he blind?"

More from force of habit than any hope of enlightenment, he turned to look at his signal-board.

"Great Scott! I went to sleep with that red lantern to stop 'em. Now in the daylight they can only see the board, and that's set clear!

"No. 12 and that cattle will meet on that curve south of College, then that excursion will smash into that— What can I do to save those people?"

"Br, Br, Br, V," commenced the despatcher.

Ford paid no attention to the insistent calling of the wire, but thought rapidly.

"They can only run fifteen miles an hour through the city limits, and have two and a half miles to go before opening up! A horse to catch 'em at the crossing!"

A searching view of the streets from the front gallery revealed nothing but the usual 6 A.M. deathlike quietude of a country town. Not a sign of life of any kind.

"Br, Br, Br, V," now rang the train-wire with an unmistakable tone of impatience.

The operator at "D," a wire-testing office, thinking Ford's instrument on the train-wire out of adjustment, switched all four wires that ran into "Br" together, so now all four sounded "Br, Br, V," in unison.

Ford almost fell into a chair, and, his head pillowed on his arms, he seemed utterly paralyzed.

"The phone to College— No chance. I tried that last night on that death-message to the principal. Wire broken."

College Station, the ordered meeting-place, was a blind-siding, eight miles south of Bryan and three hundred yards from the A. and M. College of Texas.

"Br, Br, V," rattled the four sounders simultaneously, with a note of genuine alarm, as the despatcher knew No. 12 should have passed Ford's Station.

"I'd better answer him; maybe he's got more sense than I, and can keep 'em apart," said Ford. Opening his key, he poised his arm for flashing intelligence of the impending disastrous result of his carelessness.

"Br, Br, Co," came in weak and hesitating Morse from a table in the corner, the only instrument working since Ford had broken the current on the train-wire. Until now its weak sound was unheard.

"The girl! She might stop 'em."

Without bothering to close the despatcher's circuit, Ford ran to the pony wire built from Bryan to the college dormitory by a former enterprising operator-stenographer employed by the college president, now only used by the operators in their leisure moments to talk to the new girl stenographer, who was doing her best to master the language of the "little brass noisy," as she called it.

"If I get her excited, she won't be able to read a word, and there is only about fourteen minutes left," said Ford again, as he slowly answered:

"I, I, Br. G. M., Miss Nellie. Are you up and dressed already?"

"Sure. Been out watching the surveyors laying drains," she started pleasantly.

Ford had been racking his mind for a plan whereby she could stop that train.

Her words gave him an inspiration.

"Say, Ne, copy this, and don't break me.

"Please rush down to the railroad. Pick up that red flag the surveyors use to lay the drains, that is standing near the gate, and wave it beside the track until you stop that south-bound freight. Tell them to get in that siding quick and let two trains pass north. Got past orders. Show them this message."

"O.K.," she started.

Ford now fairly snapped out the characters:

"For Heaven's sake, hurry."

She had about ten minutes in which to make it.

Turning to the train-wire, he answered:

"I, I, Br. V, U there?"

"I, I, V. Where you b—" the despatcher started angrily.

With forced deliberation, Ford broke in:

"Using lanterns, didn't turn board—12 couldn't see lantern in daylight. Got by at 6.50. Trying catch 'em College. Know in ten or fifteen minutes if need wrecker."

And he closed the wire.

The despatcher made a few dots in an excited, aimless way; then, evidently thinking, "There's no use bawling that dub out," also closed his key.

Ford spent the worst quarter of an hour

of his life—walking back and forth in the small telegraph-office, at every turn looking at the clock, whose hands seemed to have quit moving.

"Br," started the pony wire.

Ford was beside it before half the call had sounded.

"I, I, Br."

"South-bound train on the siding. Engineer and conductor both outside my door. Wouldn't let 'em come in. Their language is something awful."

Ford was so relieved at knowing of the safety of the trains that he laughed aloud at this naive description of old Collins's proverbial grouch, now accentuated by the insinuation that he had run over a signal.

"Fine, fine, little girl. Please stay by the wire and let me know when those two trains north pass."

He now called up the despatcher and reported the safety of the trains, adding:

"Here's the day-man; you and he can get 12 out of that blind-siding. I have gone to pack my grip."

When the girl told of the passing of the trains north, a message from the train-master, relayed from Bryan to the girl at College, notified No. 12 to proceed.

Ford returned to the office some two hours later, and, calling up the chief despatcher, asked:

"When will I be relieved?"

"You have already been relieved," was the reply.

"O.K. Will you pass me into Houston?"

"No. Walk."

"O.K. G. M. 73," replied Ford sarcastically, and, speaking to the day-man:

"Losing my job is such a small thing, compared to what so nearly happened," and he shivered at the thought of the awful scene his imagination so vividly depicted, "that it seems merely an incident in the day's work. Hereafter it's 'five on a line for me.'"

Ford went south from Bryan.

He did not walk—not exactly. He rode his bicycle for eight miles. Then it was abandoned, as it was not a tandem.

A DEAF TELEGRAPHER.

PETER A. FOLEY, the "lightning taker" of Portland, Maine, is said to be the most wonderful telegrapher in the world. Foley is totally deaf, an affliction which ordinarily would be supposed to make telegraphy an utter impossibility, but since he became deaf Foley has developed what may be called a sixth sense, and by touch and sight he can detect the finest movements of the instrument and correctly interpret them.

His nervous system is a part and parcel of telegraphy, and by the sense of touch in his finger-tips he takes messages transmitted from the ends of the continent.

He can also read a message by watching the sounder. With his left forefinger placed lightly on the sounder he can, by his wonderful sense of touch, take a message as accurately as any man in the office. His feat is said to be the most wonderful thing any telegraph operator has ever accomplished.

Mr. Foley insists that he needs no more consideration than any operator, for he can read the fastest transmitting without the slightest difficulty, and his record of mistakes in a year is said to be smaller than that of any other operator in the office.

Mr. Foley's hearing began to fail rapidly eight years ago. He was then considered the best operator in the Portland office and every effort was made to help him. The manager of the office arranged the receiver so it would make a louder tick, but in a short time he was unable to hear even this.

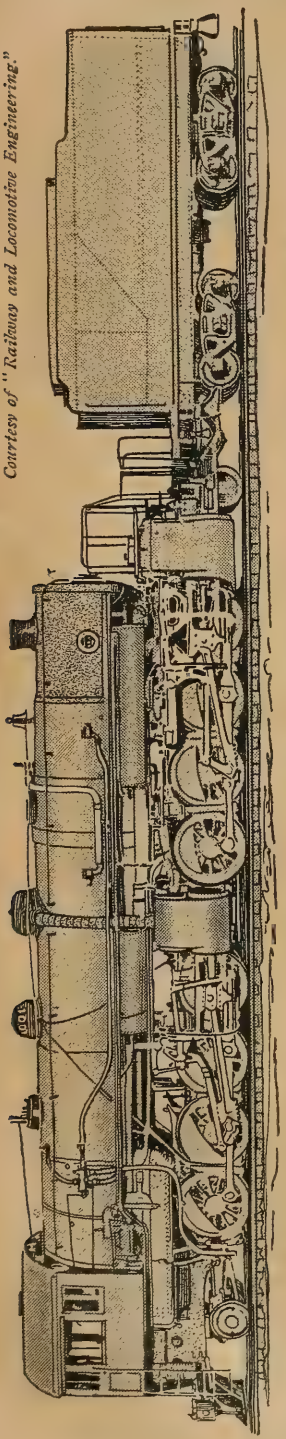
There appeared no alternative but failure. No operator in the world had been able to work after he had lost his hearing. The manager didn't wish to send a good man away, so he was set to doing common work at the same salary he had received as an operator.

One day he announced that he would soon be able to go back to his old position. The manager was dumfounded. That a deaf man could be a telegraph operator was too much to credit. But Mr. Foley was able to prove that he could do it.

He was soon able to read a message merely by watching the sounder. This was not the full extent of his achievement.

By many days and nights of practise he developed such an accurate touch to his finger-tips that he was able to read and receive a message. In a short time his sense of touch and sight restored him to the profession which it had seemed inevitable that he must abandon.

This Engine Runs Backward.



Courtesy of "Railway and Locomotive Engineering."

Latest Type of Locomotive Built for the Southern Pacific Company, Which Are Run Cab First, So as to Give a Better View of the Track.

THE Baldwin Locomotive Works have completed twenty-one Consolidation Mallet type locomotives for the Associated Lines. These are part of an order for 105 engines, placed with these works by the Associated Lines in the spring of 1909.

The heavy Mallet engines have been assigned as follows: Three coal-burners for the Union Pacific Railroad, three for the Oregon Railroad and Navigation Company, and fifteen oil-burners for the Southern Pacific Company.

Apart from modifications necessary because of the change of fuel, the six coal-burners are practically duplicates of Southern Pacific locomotives Nos. 4000 and 4001, which were built by the Baldwin Locomotive Works early in 1909.

Experience gained in operating these engines through tunnels and snow-sheds, says *Railway and Locomotive Engineering,* has proved the desirability of placing the engine-crew where a better view of the track can be obtained.

Accordingly, the new Southern Pacific locomotives are designed to run with the fire-box end first, and the tender back of the smoke-box.

Oil Is Used as Fuel.

With a coal-burning locomotive such a plan would of course be impracticable, but no difficulty need be anticipated when using oil as fuel.

In the new design the cab is entered through side doorways, reached by suitable ladders. An unobstructed view of the track is obtained through the front windows.

The cab fittings are conveniently located within easy reach of the engineman, who occupies the right-hand side when looking ahead. The Ragonnet power-gear is employed, and its cylinder is located as on the previous locomotives. It has, therefore, been necessary to run a shaft across the boiler back-head, in order to make connection with the operating lever.

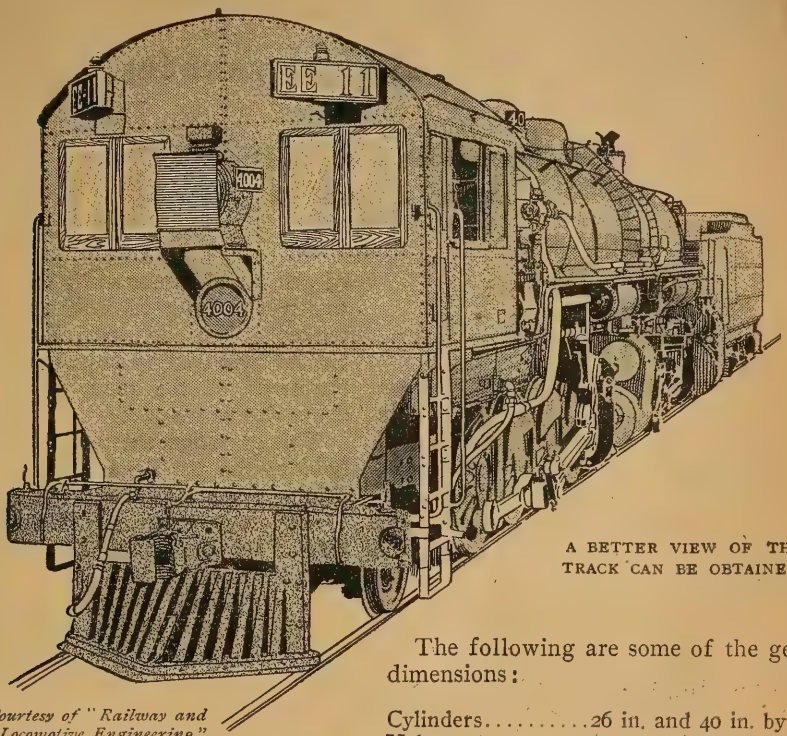
This arrangement, however, in no way interferes with the convenience of the cab fittings.

The main frames are securely braced, under the cab, by a steel casting to which the bumper is bolted. The latter supports a stub-pilot.

The bumper is placed well forward to protect the

occupants of the cab from buffing and collision shocks.

The deck-plate at the smoke-box end of the locomotive is of cast-steel, and is provided with a chafing-block and a suitable pocket for the tender draw-bar. The tender is of the Associated Lines standard design with rectangular tank. This is the customary pattern for oil-burning locomotives.



A BETTER VIEW OF THE TRACK CAN BE OBTAINED.

Courtesy of "Railway and Locomotive Engineering."

A Number Being Built.

So far as the boiler, cylinders, machinery and running-gear of this locomotive are concerned, the design practically duplicates that of Southern Pacific engine No. 4000. The latter engine has now been in service a sufficient length of time to demonstrate its value; and the fact that twenty-one additional locomotives of the same type have been built for the Associated Lines proves that the performance of these great engines has been fully up to expectations.

These "cab-first" engines are equipped with the Baldwin superheater, located in the smoke-box, for reheating steam between high and low pressure cylinders, the superheating surface being 655 square feet.

The following are some of the general dimensions:

Cylinders	26 in. and 40 in. by 30 in.
Valves	balanced piston.
Boiler	straight, steel, diam. 84 in.
Working pressure	200 lbs.
Firebox	steel, length 126 in.
Firebox	width 78¼ in.
Firebox	depth, front, 75½ in.
Firebox	depth, back, 70½ in.
Tubes	steel, number, 401.
Tubes	diameter, 2¼ in.
Tubes	length, 21 ft.
Heating surface—	
Firebox	232 sq. ft.
Tubes	4,941 sq. ft.
Feed-water heater tubes	1,220 sq. ft.
Total	6,393 sq. ft.
Grate area	84.4 sq. ft.
Driving-wheels	diameter, 57 in.
Driving-wheels	base, 39 ft. 4 in.
Total engine base	56 ft. 7 in.
Total engine and tender base	83 ft. 3 in.
Weight on drivers	394,700 lbs.
Weight on front truck	22,100 lbs.
Weight on back truck	20,200 lbs.
Weight, total engine	437,000 lbs.
Weight, engine and tender, about	610,000 lbs.
Tank capacity, for oil	3,150 gals.
Tank capacity, for water	9,000 gals.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

A Young Man Rises in His Might and Defies a Modern Goliath.

CHAPTER I.

Meeting the Boss.

VINCENT WILSON was telling Harvey Jones what he had heard. Something like the sum of twenty million dollars were to be expended for improvements.

"And," said Wilson, "they are to be paid for out of the earnings of the road, I understand."

"What of that?" said Jones.

"It's a bad idea."

"Do you dare to criticize the action of the board? As the president of the Mainland System, I countenance everything it does."

Jones, the big, burly man of finance, looked at the young mechanical superintendent as if he could have killed him for his impertinence.

But Vincent Wilson was ever ready with an answer. He had not spent ten years in the shops without learning something. Just entering his thirtieth year, he was one of that great and growing band of clever Americans—the younger element who see in the future bigger things to handle, both industrially and financially, than their fathers ever dreamed of.

Wilson had studied railroading in all its branches. From school he had gone to the Mainland System apprentice-shops, from which he had been graduated with all the honors that can come to a youngster in such a trying place.

He had worked his way up, in every sense of the word, through minor jobs of grime and grease until he had reached finally the rung of mechanical superintendent. He had saved his money, and he had managed to buy twenty shares of the stock of the road when the panic drove it down to 16.

This gave him the privilege of a stockholder—the privilege of knowing something of the inside of the great system.

It also gave him ambition. The beacon of that ambition was that he would be president of the road some day. Maybe it was a foolish ambition.

But Vincent Wilson was a man who had the courage of his convictions—even when he lost.

He had the courage to speak to President Jones as he did.

Conditions had improved on the Mainland System. The panic had subsided. Business was coming back to its normal state. The stock of the road was going up. It was now near 50. Any young man who buys good railroad stock at 16, and soon finds it thirty-four points higher than the purchase price, and without any chance to diminish—certainly feels the blood of progress in his veins.

In view of the better times, the directors of the Mainland System had voted to spend twenty millions for improvements.

That is what Vincent Wilson and President Harvey Jones were debating about.

"Do you dare to criticize the action of the board?" President Jones asked again.

"It isn't a matter of criticism," said Wilson. "It's a matter of facts. Twenty millions is too much to spend on the work we have to do. I figure out that it is not necessary to spend five millions on

construction; and as for the new rolling-stock, I can cover that with much less. Sixty new passenger locomotives will not cost us more than twelve thousand dollars apiece."

"How do you know?"

"I've been getting figures."

"Then you mean to infer—"

"That there's a leak somewhere!" replied Wilson with unusual directness.

"A leak!" echoed the president.

"Some might call it graft," said Wilson, "but I prefer the more polite word—just now."

Harvey Jones looked steadily at the young mechanical superintendent. His jaws slowly set, and it was a moment before he said:

"You are making a charge against some one connected with this railroad."

"Have it that way, if you want to," replied Wilson. "I'm pretty well convinced that something is wrong somewhere, and when something is wrong, somebody is to blame."

"I will talk with you further about this," said the president. "I must go to luncheon at the Lawyers' Club. I'll be back at three o'clock. I'll see you in my office half an hour later."

"I shall be there—promptly," answered Wilson.

The two men parted. Wilson hurried over to the roundhouse to inspect a new Mallet Compound which the Mainland had purchased for work on its heavy grade in northern Tennessee. He had intended to take her out on the main line and give her a try that afternoon, but the appointment with the president at 3.30 o'clock prevented.

It would be a big feather in his cap if he could find the leak, and he was sure that one existed. It would, perhaps, become known all over the United States that Vincent Wilson had unearthed the fraud underlying a gigantic trunk line, and his stock would soar—soar so high that he would be recognized as one of the brightest young railroad men in the land; a new Harriman, with greater things to conquer.

That was what he wanted to happen.

As the thought struck him, new ambitions filled his being.

He was as one who has hunted long for gold and finally struck a lead.

And he was sure—so sure that, as he crossed the tracks to the roundhouse, he exclaimed aloud to himself:

"I am sure! I am sure!"

The headquarters of the Mainland System were in Louisville, Kentucky, and its lines ran down into the rich southland through the cotton belt of Texas and on to the West.

It covered a territory rich in promise—a territory blessed by nature.

It had employed many men in its various departments. One very unique character had been for years the head of its medical department. He was Dr. Ferguson.

For several years he had not been in the employ of the Mainland. He had been retired on a pension.

Vincent Wilson wanted to see him—he wanted to see him that day—particularly before the meeting with Jones.

He knew that Dr. Ferguson, or "Doc," as he was commonly called, knew about Meriel Planquette. He wanted to find Meriel Planquette.

"I'll make that crafty old medico tell me," he said to himself.

The doctor had a little office not far from the Mainland System's offices, and a scant practise. He was best known now to medical students, whom he coached for their "exams," when he wasn't at his other occupation—spinning yarns in his dusty, smoke-filled rooms.

Vincent knew no time but the present. When he acted, he acted quickly—but with decision.

He hastened to "Doc" Ferguson's rooms, and found him alone. He was a little gray-haired, gray-bearded man, with snappy green eyes. His tightly drawn skin over his bony face and hands bespoke his age. He seemed to be a nervous man—but calmness and coolness in all things held him in check, and gave him what he called "perpetual youth."

Vincent greeted the old man with customary formality, and, after sparring for an opening, he began to learn the whereabouts of Meriel Planquette in a somewhat roundabout manner, for which he had a well-developed reason.

"I say, doc, what's become of old Kaintuck? He hasn't been around for ages," said Wilson.

At the question, the doctor grew sud-

denly grave, pulled at his pipe in a meditative fashion, and, so to speak, retreated behind his eye-glasses.

CHAPTER II.

Where Is the Girl?

"BOY," he said, "you will never see little Kaintuck again."

"Dead!" said Wilson.

The doctor shook his head slowly. "No, not dead," he answered, and again lapsed into silence.

"Tell me about it, doc," said the voice that had first spoken. "He was such a good sort, in his quiet way."

A picture sprang up before the eyes of Wilson of the vivid eyes and reserved manner of the young painter whom all had called "Kaintuck," because, in a vague way, it was known that he belonged in Kentucky. But this fact was about all that was known of him; for, while being neither ungracious nor unpopular, he preserved around him a certain delicate atmosphere of reserve into which one felt it a kind of violation to intrude.

No one knew how or where he lived. But that bare existence was a fight for him, it was easy to perceive, from his frequently worn and almost starved look.

Days and even weeks would go by without his even being seen or heard of; then, suddenly, he would blow in some evening, with his ivory face, the great black, unearthly eyes, and the straight elf-lock that would persist in falling over his forehead, however often he tossed it back with his frail, exquisite hand.

When he was in the mood, he could talk with a vividness that was almost painfully intense and imaginative; and at such times his great black eyes seemed like mirrors in which you could see all he was seeing and telling. But his talk was always impersonal—it told you nothing of himself; and when the time came for breaking up, he would suddenly be gone, no one knew whither. It was some such figure as this that Wilson saw in his mind's eye as he said: "Tell us about it, doc."

The doctor took a long time to answer.

"Well, boy," he said, "I'll tell you—but it is one of the saddest stories ever told in this sad world.

"It was about six months ago," the doctor began, "and I hadn't seen him for days, when suddenly, one night, when I was quite alone, working on some papers, in comes Kaintuck—but a Kaintuck so different from his usual self that I hardly knew him.

"We all remember how shy he used to be, how quiet—but this night he came in like a breeze, all lit up, and laughing, and even boisterous.

"My very papers rustled as if the window had suddenly been thrown open and the north wind had run its fingers through them. He seemed almost twice his usual size, and his eyes were like coals of joy. In fact, to tell the truth, I thought he was drunk — Kaintuck, drunk! Think of it."

The doctor took one or two draws at his pipe, and presently continued.

"'Kaintuck,' I said, 'you seem to be feeling good. What's the matter?'

"'Good!' he answered. 'I should think so, doc. I am so lonely, and I must tell somebody—so I thought of you. Doc, I've won the prize, and I'm going to marry the most beautiful girl in the world!'

"'The prize,' I said. 'What prize?'

"'I know I never told you fellows anything about myself—but all these months I've been working on a portrait of Meriel, for the competition at the Beaux Arts. The prize was quite a lot of money—and, doc, I've won it! Shake!'

"After I had congratulated him with all my heart, though I was still somewhat in the dark, I said:

"'But who is Meriel? You haven't told me that.'

"'Meriel,' he answered, 'is the girl I have loved since I was a boy; would you like to see her portrait?' and he drew a photograph of his own picture from his pocket. It was a lovely face. He gave me a copy of it. It stands yonder. And then he opened out, and told me all about himself and his early days.

"It seemed as though the flood of his complete joy had loosened his restraint, and he talked full and long as I had never heard him talk before. He told me of his home in Kentucky, of his mother, of his sister. He told me of the

privations he had gone through, of his tramping to the district school after doing the chores around the house.

"And then he spoke of Meriel—how he had loved her while she was still a little girl, and how even then they had vowed a childhood's love for each other. I tell you, boy, it is a wonderful thing to see a man so happy in the love of a true woman, kept pure by it, and sustained in his ideals, like poor Kaintuck.

"As he told me all about it from the fulness of his heart, it took me back ten years, and I tell you it did me a world of good."

The doctor took a rest for a while and smoked his pipe in silence, while Wilson handed the portrait of Meriel on to the other with murmured remarks on her beauty, touched with a certain wondering awe anticipatory of the coming sadness at which the doctor had hinted.

"Come on, doc," said Wilson, at length. "Brace up, and tell us the rest."

"Well," responded the doctor, taking the pipe out of his mouth and proceeding in his deliberate way. "He went on talking of his Meriel, and the future with her, in a way to break your heart. I have never seen, nor ever hope to see again, so happy a man in all this world. He almost made you afraid—he looked so happy.

"And I may say," the doctor added, after a brief consultation with his pipe, "speaking merely as a scientist, that there is nothing to me so marvelous as the spectacle of pure and absolute joy. It is the only miracle left us—for, indeed, there is nothing to account for it. We fellows of the laboratory, who know what a world we are in, cannot but stand in amazement before the confident happiness of two people in love.

"We are all in love, in our own particular ways, I grant, but there are not many of us in love like Kaintuck. I needn't tell you about it. You know the difference. Meriel was the only woman Kaintuck had ever loved—you don't need me to make the distinction."

Then, smiling, he made one of his boyish puns. "Have you ever thought that the more you love—the less you love?"

"Go on about Kaintuck," said Wilson.

"Well," continued the doctor, "I sat and listened in envy—listened to every word of the transports of his new-found happiness. I felt I could have listened to him forever. His joy was like some magnetic natural phenomenon—a waterfall, a thunder-storm of joy, an apple-tree in blossom. It was so passionately elemental. I watched it almost as I would watch some picturesque experiment.

"Then, when he had almost worn himself out with his enthusiasm, I said: 'I know you don't often drink, Kaintuck, but this is an occasion on which you shall not refuse me. I have here an old bottle of Madeira, which it would almost seem I have saved for this occasion. Let us drink it together to Meriel and your happiness.' The bottle opened, we drank the toast and, lighting cigars, continued to talk of the future."

The doctor made another pause, then proceeded in a still graver tone.

"The bottle and the evening were both nearly ended," he said, "when Kaintuck rose, and taking a cigarette, held it over the flame of my student-lamp, and, turning toward me, said that he must be going.

"'One more drink to Meriel—and the journey to Kentucky!' I exclaimed, raising my glass. He raised his glass too, all the time absent-mindedly holding his cigarette over the flame.

"'Mind your finger, Kaintuck,' I said as we drained our glasses; 'you'll burn it, man'—and, involuntarily, I jerked it out of the flame—for a terrible thought had occurred to me.

"'Are you a salamander?' I said, trying to laugh. 'Are you accustomed to hold your fingers in the flames like that?'

"'Like what? I never noticed,' he answered carelessly.

"'But surely you must have burned your finger,' I said. 'I saw it right in the flame.'

"'Not at all,' he said. 'What do you mean?'

"'Do you mean to say it didn't burn you?' I said.

"'Not in the least,' he answered. 'Here it is!'

"'Do you mind holding it in the flame again, Kaintuck?' I said with ghastly misgiving at my heart.

"'Of course not,' he answered. 'But why should I?'

"'Never mind — it is a whim of mine.'

"And then he held his finger in the midflame till the flesh shrunk, but, apparently, the fire gave him no pain.

"'What is the matter?' he said. 'That's easy. I have often done that.'

"'Kaintuck,' I said, 'do you mind opening your shirt? I want to look at your chest.'

"'Of course,' he answered; 'but what is the matter with you? Do you want to scare me? Tell me what's the matter.'

"Meanwhile, he was undoing his shirt, and, holding it wide open, I looked in.

"There were two reds spots upon his chest.

"I feared that I might faint, and had all I could do to steady myself.

"'You seem to be troubled about those red spots,' he said. 'They are nothing. I have had them for quite a while.'

"Then, noticing that I did not speak, and seemed perturbed, he, too, grew suddenly anxious.

"'What do you mean?' he said; 'the spots are nothing, or *are* they?'

"My nerves were so gone that I staggered away from him and sank into a chair; but he stood over me, insistent for an explanation.

"'Tell me,' he said, 'what is it—for Heaven's sake, tell me.'

"'I cannot tell you, Kaintuck,' I said. 'I haven't the courage. Ask some one else. I dare not tell you.'

"'You shall,' he said. 'I am a man. You must be a man, too. As your friend, I beseech you to tell me.'

"'Do you really want to know, Kaintuck?' I said. 'Are you really strong enough to hear?'

"'Go on,' he said, his face like a sheet of paper.

"'Kaintuck,' I answered, 'God help you—but you are a—leper.'"

"Great Scott!" shouted Wilson.

"The way he took it," the doctor continued, "was the bravest thing I ever saw. He stood for a long time quite silent, leaning against the mantel. Then, presently, he said: 'I suppose it is incurable, doc?'

"'Quite, Kaintuck,' I had to force myself to say.

"'No hope?'

"'No hope.'

"'And if I were to have children'—and for a moment his voice wavered—'it would descend to them?'

"'Indeed it would.'

"Then again he was silent, white and tense, straining every nerve to master his agony.

"'Think of it, doc!' he said, after a moment. 'Think of it, doc!'

"And at this I confess that I broke down and cried like a baby. For when he said 'think of it,' it all swept over me—how he had come into the room buoyant and bright-eyed with the future. He had won his prize! He had won his love! I had never seen such a picture of pure happiness. And then to think how different the world was to be for him as he left the room. 'Think of it, doc!' I believe my breaking down helped him to pull himself together. Presently he laid his hand on my shoulder.

"'Don't fear, doc,' he said. 'I'll play the man. But I must be by myself. I need a little time to think it over. But I'll see you once more before I do—whatever there is to do.' And then in a flash he was gone, and Heaven only knows what the poor fellow went through as he walked back to his lonely lodging."

After another pause, the doctor resumed.

"A week after he came back to me, looking about ten years older, but curiously calm. 'Doc,' he said, 'I have fought it out. I have decided what to do. At first, of course, there seemed only one way. You know.

"'But the more I thought of it, the more it seemed the coward's way. Then there was Meriel, and the old folks!

"'Doc, do you know anything about love?' he said.

"'Not much,' I answered.

"'Do you think girls get over things? I mean, suppose I go away, with no particular explanation. Don't you think that might be better than telling Meriel the truth? Her pride would help her, don't you think, if she only thought that I had deserted her; whereas, if she knew the truth, her pity might break her heart.'

"'I believe you are right, Kaintuck,' I said.

"'I think so, too,' he said; 'but, oh, to have to let her think that of me! It is a million times more to me than those two red spots. Think of it, doc.'

"After a while he continued: 'I am glad you agree with me — for I have made up my mind. I shall give out that I have suddenly become religious, and that my particular form of religious mania is to go out to one of the leper settlements in the South Seas—do you see?—to help the poor devils.

"'They will, no doubt, think me crazy —but, after all, doc,' he said with a sad smile, 'no one can deny that it is a noble motive, and perhaps, seriously speaking, I may be able to bring some comfort to the other poor devils like myself. My fingers can still hold the brush—and did you ever hear me play the banjo? That will be easy to believe. Kaintuck suddenly developed a loose screw in his head and went away to entertain the lepers in Molokai! Tell me—do you think that will go?'

"'I guess it is the only way,' I said somewhat doubtfully.

"'But, Meriel! Meriel!' he cried, suddenly throwing his face upon his arms. 'I trust this is the best to do—for Heaven knows I do it for her sake.'"

The doctor paused again to relight his pipe, and then concluded:

"Kaintuck is now in Molokai—he has been there six months. Here is a letter I received from him only yesterday."

"And Meriel?" asked Vincent.

"Do you want to know very badly?" asked the old doctor.

"I do. I must know."

Ferguson hesitated suspiciously. Then he said: "I really don't know. In fact, I'm positive I don't."

Quick as a flash, Vincent Wilson caught the double meaning of those words.

"You do know, Dr. Ferguson. I hear that she is a rich woman now, and lives in style. There's a reason for it."

"Is it worth money to you to know?"

"That is a matter for my mind alone. I cannot discuss it with you. But you know where Meriel Planquette is—and you are going to tell me."

"How do you know that I know?" asked the old man as he rolled a fresh pipeful between his hands and smiled cynically.

"Your demeanor proves it."

"Grant that it is so. Is it worth something to you—the information?"

"You mean! You mean—that you—have—" Vincent Wilson was getting excited. He could hardly control his words.

"That I have a price," replied old Ferguson without turning a hair.

"You scoundrel!" shouted Wilson.

"S-s-h!" said the old doctor, raising his finger to his lips. "Don't get excited. We all have our price in these days. You will have yours sooner or later."

But for his age, Vincent Wilson would have floored the doctor.

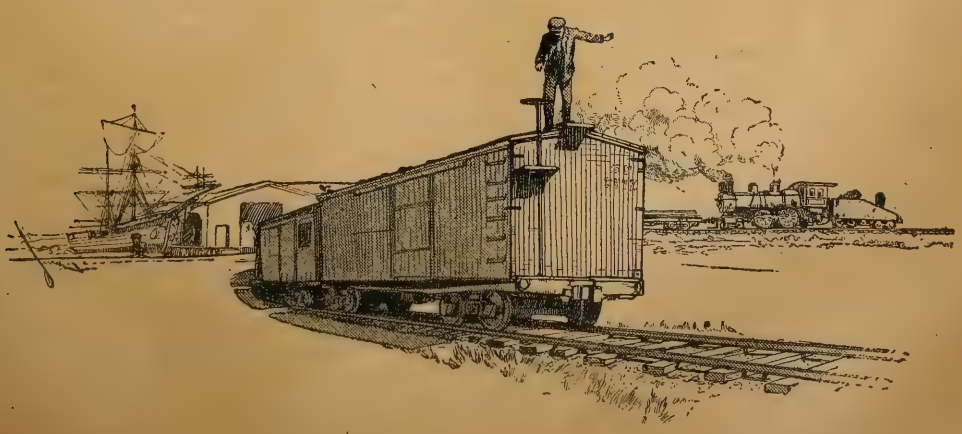
He calmed himself, and then asked:

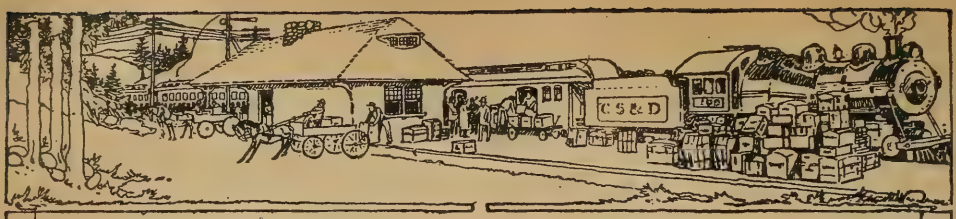
"What is your price?"

"Five thousand dollars," answered Ferguson.

"Out of the question!" replied the younger man. "That is common extortion!"

(To be continued.)





THE MUSIC OF THE TRAIN.

BY EVA WILLIAMS BEST.

Written for "The Railroad Man's Magazine."

DO you know the song I'm singing, I, the train that bears you on
Through the sunshine and the shadow, through the twilight and the dawn,
Over prairie and divide,
Chasms deep and rivers wide,
To a distant destination, on and on and ever on?

You who love me hear my music, you who travel to and fro
From the realms of fragrant blossoms to the kingdom of the snow;
To your soul my own soul sings
Of a thousand wondrous things
In the ceaseless, rhythmic clinking of my pounding trucks below.

I am servant of the nation, mastered giant-slave of man,
Bearing his stupendous burdens in a mighty caravan.
For each swift, revolving wheel
Turns upon the rail of steel
In a prompt response, obedient to human will and plan.

I am bearer of grain garnered in a million golden fields;
I am carrier of fruitage that a land of orchards yields;
And where human hunger is—
Where lack life's necessities—
I supply the need, commanded by the power compassion gives.

From the mines in far-off mountains I convey the precious ore—
Vast, inestimable treasures of our inland's richest store;
And supplies to meet demand,
Work of cunning craftsmen's hand,
From the studio and workshop, labor's skill and scholar's lore.

And how often, oh, how often, through the long, eventful year
I have sung my song of gladness—sung of happiness and cheer—
To the hearts that beat in tune
With my sounding, rhythmic rune
As I bore the exile homeward after absence long and drear.

And the lover to his lady: Was there ever song so sweet,
So melodious, so rapturous, so blissfully complete?
Our two voices were as one
As our ardent course we run!
And I lost! What wheels were ever swift as Fancy's flying feet?

Wedded hearts I have transported to their new homes far away,
Blushing brides and gallant bridegrooms on their happy marriage day;
Full of hope that life, perchance,
Would continue its romance—
None so bright and brave and bonny, none so confident as they.

But at times I sing a measure, solemn, dirge-like, full of gloom,
As I bear a lifeless body to a drear and distant tomb;
And the mourners by the bier
Only wailing minors hear,
As the pulsing beat sings drearily of destiny and doom.

To the ailing and enfeebled who entrust themselves to me,
Those who seek the softer, kinder skies that arch a Southern sea,
I sing songs of Nature's wealth,
Of her stores of life and health,
Till hope enters each despairing heart and dread misgivings flee.

Letters, tons and tons, I carry—correspondence grave and gay—
To the eager multitude that waits their coming day by day.
All of life is written there:
Sad regrets and fell despair,
Tragic tidings, joyous greetings, hatred's haste, and love's delay.

Like a lapidary skilled in all the wisdom of his art,
I string all the towns and cities, scattered far and wide apart,
In a necklace rich and rare
For Columbia to wear—
Links of steel to bind her jewels, in every port and mart.

Do you hear the song I'm singing? Do you hear the loud refrain,
Sympathetic, modulated to your pleasure or your pain?
To your soul my own soul sings
Of a thousand wondrous things
In the ceaseless, rhythmic rolling of man's giant-slave, the train.

FORT, OF THE NEW YORK CENTRAL.

Climbed from the Bottom to One of the Most Important Passenger Positions in America.

JERRIT FORT,
G. P. A., NEW YORK CENTRAL LINES.

Redrawn by H. M. Bunker, from a photo by Pirie MacDonald.

JERRIT FORT, the present general passenger-agent of the New York Central lines, has made this long, hard, and creditable journey. Mr. Fort was born in Cedar Rapids, Iowa, in 1865. He went to work, after leaving school, in the offices of the B. C. R. and N., and, to quote his own words:

"I soon cultivated the idea that my job was only intended to furnish me with spending-money, and I regarded my monthly salary somewhat as a rich man's son at college does his monthly allowance. Shortly after my twenty-first birthday I was rudely awakened by the application of the superintendent's shoe to my posterior; in other words, I was ignominiously fired."

Being a bright young man, Mr. Fort figured that this fact would be known all over town inside of twenty-four hours, and that he would be permanently disgraced; so he struck out for Chicago, and obtained a position in a railroad office there at fifty dollars a month. The people of his home town evidently had not much faith in him, for whenever he visited home he would be greeted with such remarks as: "Well, I suppose you have come home to stay now." "Thought you'd be back before long." "Hard to make a living in a big town, eh?"

This, as New Yorkers would say, "got his goat," and he resolved to show these old Cedar Rapids folks that Cedar Rapids was not the only place where his brand of industry could be used.

Pretty soon he got a position in an auditor's office on the Wabash Railway. The lines east of the Mississippi River were at that time in the United States courts.

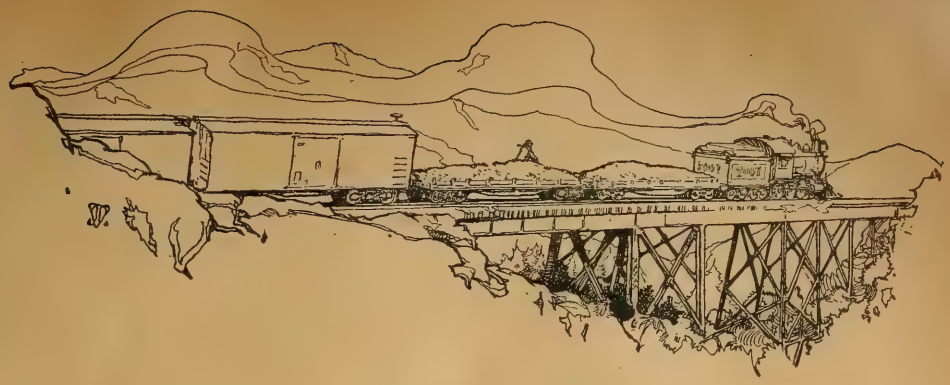
The Wabash Railway had an account with the Wabash Western, in which the Western owed the Wabash Railway a large sum of money. The Western was not particularly anxious to settle this account, and claimed that the Wabash Railway had not furnished the proper data from which to check the bills.

By this time young Fort had attracted considerable attention from the auditor, and the auditor sent him to St. Louis to ferret out the necessary information on which to collect the account. At that time freight was billed only to the coast bank of the Mississippi River, was rebilled from East St. Louis to St. Louis, and therefore lost its identity.

Young Fort's work was to reestablish the identity of this freight. He did it. This was the real foundation of his career. Before returning to Chicago he was promoted to the chief clerkship, and remained with the Wabash until the receivership was closed. He then came to New York and entered the employ of the New York Central in the office of the late George H. Daniells. He was there for eight years, and was then offered the secretaryship of the General Passenger Association. This position he held until 1900, when he was made assistant general passenger-agent of the Union Pacific at Omaha.

He held this position until in June, 1907, Vice-President Daly, of the New York Central, asked him to come back to that system.

It is said that men may be known by the enemies they make. Of Mr. Fort it must be said that he can be judged from the friends he has made—and kept.



Tragic Train Orders.

BY ARNO DOSCH.

THE block-signal and its attendant devices has removed, to a great extent, the nerve-racking responsibilities of operators. Nevertheless, there are still sections where the fact that trains do not come together, and that year in and year out no lives are lost there, is accounted for by the superhuman vigilance and efficiency of the unappreciated knights of the key.

But there are times when the most efficient of them will have a moment's aberration—in fact, it is usually to the most efficient that fortune is most unkind in their few mistakes—and the result is too terrible to contemplate. We read of men, women, and children mutilated or killed, lying forever beyond pain or torn in spasms of fearful agony; but do we think of the mutilated, agonized soul of the young fellow who has the tragedy of a score of deaths thrust instantly upon his immature shoulders, which are all unprepared to meet it? Surely he is the chief of the mourners.

One Small Figure Wrongly Transcribed May Hurl a Dozen Souls into the Unknown, or a Minute's Forgetfulness May Fill a Whole Town with Mourners.

"CAN you stop 267?"

The wire seemed to await the answer, while the night operator at Canaan leaned forward and saw the caboose-lights on the fast freight disappear around a curve.

"Gone. Anything wrong?"

The strained faces in the despatcher's office at Concord grew old and haggard as they listened. James Bromley, their chief, opened his mouth to speak, but his voice caught. In the hundredth of a second a terrible picture had been flashed on the camera of his mind.

The whole of his division, every switch, every curve, the cuts, the bridges, the grades, spread out before him in a panorama, and in the center of it he saw the Quebec express, loaded down with happy excursionists, rushing into collision with the fast freight just north of Canaan. The freight, making for a siding, was tearing a hole in the night with a string of heavy cars, and when the two trains met it would mount the passenger and smash through car after car.

He turned painfully to the clock and realized the collision was due.

"Anything wrong?" repeated the night operator at Canaan.

Bromley spoke in a dull voice.

"Order out wrecking-crew, doctors, and nurses, ready to start at a moment's notice."

An Unanswered Query.

"Anything wrong?" came the question again over the passionless wire.

Then the operator at Canaan remembered something, and he reached up to a hook as one prepared to take death by the hand. Scribbled in his own writing was a message which had formed part of a train-order he had given to the conductor of the fast freight 267: "No. 30 an hour and ten minutes late."

Number 30! He had read it No. 30, and rewritten it 34. What lapse in his mind had caused him to see a four where he had written a cipher he could not explain. No. 34 was the Quebec express, due at his station in seven minutes, but it would never arrive. The fast freight would see to that in—he glanced at the clock—half a minute.

He seized his head in his hands and crouched down over the desk, shutting out the clock and the deadly silence of the night; but there crashed through his head the certain impact of the two trains, the buckling of the coaches, the smothered cries as the heavy freight-cars were hurled through the broken seats. People he knew were on that train. Already their bodies must be jammed and lifeless.

Awaiting the Death Crash.

He looked up at the clock again, and it seemed to have stopped; but he listened, and could hear the tick. The trains were even then meeting, and he could only wait.

If only it had not been he! There was absolutely no one else to blame. He had made the mistake, and he had ordered 267 to go ahead. The error had been discovered when a comparison of train-orders in the Concord office showed that they had lapped, and then—too late—the question had come over the wire: "Can you stop 267?"

Concord knew it was too late when the message was sent, but it was the one chance.

In anything else a little error such as the substitution of a four for a cipher could be corrected, but a train-order, once gone, is beyond recall. The Canaan operator had made the first mistake in his career, but it had snuffed out he knew not how many lives.

And it was well he did not know. By the time the truth came over the wire he had a fresh grip on his reason, and held to it while the list of dead mounted to twenty-five, then to forty-three, and the seriously injured reached, first, forty, then more than fifty.

While they waited in Concord, stunned, it flashed on Bromley—the Montreal Express. It had no knowledge of the disaster, and was burning the rails southward. Frantically one of the men threw open the key and called station after station, but from each came back the answer: "Gone." And in each sat an operator, realizing that there was an impending catastrophe, but knowing only vaguely where or how.

Steel Cut Like Cardboard.

The operator at Canaan heard the calls and the answers, and he knew what it meant. Added to the collision with the freight, which must have already strewn the track with the dead, was to come the rear-end collision with the Montreal express, killing those who had escaped the freight.

When the crash came between the Quebec express and the freight, the engine-crews had just enough time to throw on the brakes and jump. As they leaped, the huge locomotives broke each other like cardboard boxes, leaving the track clear for the solid freight-cars to hurtle through the coaches. The smoker was completely demolished; and in the second car, where all faces were turned toward a man who was singing, the seats were ripped out from end to end, leaving a trail of dead and unconscious excursionists.

The buckling of the third and fourth cars threw Frank Ryan, a brakeman, as from a springboard, and he fell, bruised and stunned, beside the track. In the

"MONTREAL EXPRESS—RIGHT BEHIND—FAST TRAIN—NO SIGNALMAN!"

dark, some one stumbled against him, bringing him back to consciousness, and he seized the leg as it passed over him. But he could only lift one arm, and all the lower part of his body was useless. As he fell back, a head bent over him, and he gasped faintly:

"Montreal express—right behind—fast train—no signalman! For Heaven's sake, stop it!"

He fell back unconscious again, while the passenger whom he had seized in the dark ran up the track, not knowing how he was to stop the train, intent only on going as far as possible. While he ran the dawn broke, and the engineer of the Montreal express, peering ahead, saw the stumbling, reeling figure down a piece of straight track, and heeded the wildly waving arms.

The Anguish of Suspense.

When this, the Canaan, New Hampshire, wreck of September 15, 1907, happened, every operator on the division was suffering agonies of apprehension before the crash came. The fact that it had not yet occurred, but was inevitable, only made the pain more keen.

No wonder their faces habitually wear a serious, concentrated look. Vigilance and wakefulness are the watchwards of the profession; and yet most operators are at small stations, where, particularly at night, they have little to do. When all the world is asleep they must remain alert through the length and breadth of the land, keeping trains out of trouble and preventing delay.

As a train rushes past a forlorn little house by the side of the track, all the passenger thinks is that he is glad he does not live there. But it is to the faithful performance of duty on the part of men who are willing to live in such places that he is able to pass over two or three States while he sleeps.

During the night his safety has been in the keeping of dozens of these men, but he wakes in the morning without appreciating the fact that if a single one of them had failed in his responsibility, his journey would have ended in tragedy.

One of the most efficient trainmasters on a splendid system of railroads explained how he was given a sense of his responsibility. At seventeen he was night operator at a small station in Ohio, and everything had always gone well. His job seemed more monotonous than anything else, and it never occurred to him that the passengers in all the trains which passed by his office were placing an unexpressed faith in him, and expected him to watch while they slept.

Late each night two trains passed down, the second meeting an up train at the station below. One night in hot summer, when he had not been able to sleep well for a week, he received an order to hold the second train at his station. He stepped out to set the signal just as the first train was passing, and leaned his head against the door to enjoy the cool breeze it created.

The Knife of Responsibility.

The train pounded along, then there was quiet, and again it began to pound along. When it became quiet a second time, he awoke—too late. While he had been asleep standing up, the second train had passed, and somewhere between his station and the next there would be a collision. He jumped to the key and rapped excitedly:

"Hold No. 12."

"Gone," replied the operator below.

The two trains were headed toward each other, each making time for the connection at the next station. The boy pictured the wreck as vividly as the operator at Canaan, and he wanted to run and hide. But he only got as far as the station platform, where he stopped and strained his ear against the silence of the night, as if to hear the impact, miles away.

He waited fifteen of the longest minutes that ever dragged their weary seconds, and then he saw a light coming down the track. At first he thought it was a survivor hobbling in with a lantern; but it was steady, and advanced rapidly. It was the down train coming back. The engineers had each seen the other train, and come to a stop.

"That's my nightmare," the trainmaster said. "It was thirty years ago; but whenever I am tired, those trains rush at each other all night through my sleep."

Blameless Man Who Fled.

He did not run, but it took nerve to stay and face the expected horror. More than one operator has found it too much for him. John Lynes, a boy working as night operator at Volland, Kansas, on the Rock Island, was one of them.

The wreck was no fault of his; but the horror of it alone was enough to drive him out in the country as far from the railroad as he could get in a night of running, hoping that the sight of mangled bodies would cease dancing before his eyes, and the shrieks of the injured would die out of his ears.

The horror pursued him. He could not run far enough to escape. He did not know it, but he was fleeing from the terrified cries of men pinned into their seats and burned there.

This tragic order was properly received and executed, but the engineer disregarded a part of it for a reason he never had a chance to explain, as he died first. A south-bound passenger, which ordinarily waited at Alta Vista, the station beyond, for the passing of two trains, was ordered to wait at Volland on this night of June 7, 1907.

Lynes received the order, stopped the train, and gave the order to the engineer. After he had returned to his office, one north-bound train passed, and immediately after it he heard another. Surprised that the second train was so close, he glanced up and saw that it was going the other way. The south-bound had waited for only one train.

At one leap he was on the platform with his lantern, but, although he swung it as hard as he could, the train went on. So he swung it again even more violently, and then he saw that the light was out.

Lynes's Desperate Efforts.

Twenty yards down the track the pumper was walking away, his lantern on his arm. Lynes made a dash for him, racing beside the speeding passenger, which was already going too fast for him to climb aboard. The last car was

whirling past when he caught the pumper and wildly waved his lantern, but no one saw. As a last chance, he hurled the lantern itself at the rear door of the train, but it broke on the coupling.

He knew what would happen. Half-way to Alta Vista there was a long, deep cut on a curve where the trains were certain to meet. In it the engines would pile up and be thrown back on the crumpled cars. As the tragedy was borne in on him, he fled, running, stumbling, over fences, through brush, across fields, in a mad rush to get as far away as possible.

The next morning he was found miles away, and was told how the gas-tanks caught fire and burned thirty-four passengers in one car as they lay helpless but conscious, jammed between the seats.

"YOU'LL HAVE TO CATCH ME BEFORE YOU CAN TAKE ME BACK!"

Pursued by a Horror.

Lynes was fortunate in being found. Otherwise he might have lived the life of terror through which Will Thurston went after he had caused a fatal wreck on the Fitchburg.

Thurston was night operator at Ayer Junction, and was a very careful man. An amputated leg and several fingers missing after freight-wrecks when he was a brakeman had made him so. He knew what it meant for a train-order to go astray.

One night in 1889, when there had

IT WAS ALL OVER, THEN!

been a tie-up, he was ordered to stop a freight to make close connections with a belated passenger; but, other messages following, he did not have time to set the signal immediately. In those days a lantern alongside the track served the purpose of a semaphore at danger; and when there was a train to stop, Thurston had to pick up the lantern and carry it out.

On this night, a few minutes after he received the order and had straightened out a number of tangled matters, he heard the freight coming, and, unconsciously, was listening to hear it stop. Instead, it pounded right along through. Rushing out to see if the lantern was still lighted, he was surprised not to find it at all.

The train had passed; the wreck was certain, unless he could stop the passenger. Running back to his office to call up the next station, he seized the key, only to find his worst fear realized.

Nerveless and stunned, he turned around, and there stood the lantern in the corner. He had not put it out on the track.

After the crash, when they were opening the track for the relief-train, Ayer Junction failed to reply to all messages. Bill had gone.

The Ready Gun.

Years afterward, Leonard Johnson, of West Pollock, New Hampshire—who, in Bill's day, had been sheriff, but was, at this time, on a pleasure trip to Texas—recognized a familiar back on the streets of El Paso.

Walking up behind, he tapped the man on the shoulder, only to see him jump with marvelous agility for a one-legged

man, landing in the middle of the street, gun in hand. Johnson stopped, surprised, and looked on the worn, frightened face of Bill Thurston.

"What's the matter, Bill?" he asked.

"Don't make a move," replied Bill. "You'll have to catch me before you can take me back!"

When Johnson explained that he was not wanted for any crime, that the wreck itself had been almost forgotten, Bill drew an easy breath for the first time in years. He told Johnson that he had been living in dread of arrest ever since that night. A footstep in the hall would waken him in a chill, and any one brushing by his shoulder on the street turned him cold.

Many an operator who would have liked to run away and forget everything has stayed by his post and ended with nervous prostration. One of the living tragedies which remains after a wreck has been cleared away, and the victim, either dead or recovered, is the despatcher who has been so badly shaken by the horror of it that he has never had the courage to send out another train.

It may not have been his fault, but the fact alone that he issued the order which ended so disastrously is enough to take away his nerve. To many despatchers a big wreck means the end of their railroad careers. All the notable wrecks have victims of this kind. One which has left the staff of operators intact is a subject for comment.

Disaster Beyond Conception.

The most remarkable case of this kind occurred in the Middle West, following what was probably one of the worst head-on collisions that ever happened. It was a dozen years ago, but it is fresh and green in the memories of the men who lived through it. Their names, or even the road and the State, would recall it all too vividly to those who would like to forget, and even the number of the dead, if printed, would point too definitely to the occurrence.

There was a west-bound passenger-train which was ordinarily on time, but, on this tragic night had been increased by eight cars to carry a party of excursionists. Consequently it was late, although it had an extra engine; and the despatcher, anxious to put through an east-bound on time, gave orders for it to wait at a station just east of the division-point.

In giving the order, he did not take into consideration the fact that the west-bound had had the right of track for a good many years, and was not accustomed to be stopped except at important points, and sent the east-bound out before he had heard from the west-bound.

Clearing the Operator.

The operator at the point of delivery was a new man, who had just been stationed there that day, but he carried out his instructions to the letter. That the signal was properly displayed there was no doubt, as the section crew, returning from work, took a little more time than they otherwise would have getting off the track, seeing that the train had to stop. The comments among the gang regarding the signal stood the operator in good stead later, when the dead were being counted by the score.

Why the train passed, there is no telling. There were several theories at the time, the most persistent of them being that each of the engineers was busy, and each was relying on the other to keep a lookout; but neither of them had a chance to explain afterward.

When the double-header rushed by the station the new operator realized the danger on the instant, and was able to get to the door of the tower before the second engine passed. It was just at dusk when his lantern barely showed, and he saw immediately he was not noticed. Without a moment's hesitation he threw the lantern at the stooping figure of the fireman, but it went directly over his back, out the other side, and crashed on the ground. It was all over, then!

The Torment of Purgatory.

The operator stepped inside his tower again to watch it go. He knew how long the east-bound had left, and strained his ears to hear the impact. But first he went to the wire and told the despatcher what had happened.

"As I am sending this," he rapped,

"I expect any second to hear—" The sudden break was eloquent of what he had heard.

Those who were in the office of the despatcher saw him spring to his feet and stand like a frightened animal, nostrils dilated, head high and attentive. He was listening, too. All stopped work and watched him.

Far across the prairie—almost five miles it was—they faintly heard a detonation. It might almost have been a box falling in a distant room, but they knew better. To the despatcher, there was no doubt whatever.

Such a wreck as he was sure had happened was enough to wake the countryside. The only reason why the operator at the point of delivery heard it first was because he was nearer. Sound travels fast, but to the mind of the despatcher it came on leaden wings.

In the moment that the crash was resounding in his ears, he realized where the trains must have met. Both were on the down grade, going not less than forty-five miles an hour.

The double-header had comparatively light engines, while the east-bound was being hauled by one of the biggest passenger-engines on the road. He could imagine the heavy engine knocking off the lighter ones and attacking the passenger-coaches one after another. How many it would smash through it was spared him to know—then.

The sound died away, and the operators in the office continued to stare at him as the only point of inquiry. To him their look was accusing. His eyes suddenly flashed with a mad light; his two fists came down with startling violence; then, all at once, he wilted. As they continued to stare, he looked around with unseeing eyes and walked out of the office.

The Thirst for Vengeance.

They looked at each other as much as to say, "We'll never see him alive again." All the time they did not understand what the trouble was, as he had taken the message himself, but they could see calamity spelled in mighty big letters on his face.

They wanted to rush out to save him, but immediately there were other things to do. It was not half a minute before they knew what had happened, and, with a wreck on their hands almost unprecedented in the history of railroading, they had time only to think of the work in hand.

The whole town went into mourning. There was not a soul in it who had not lost a relative or friend. Feeling ran high, and there was a strong disposition to place the blame on some one and make him suffer for it.

The operator at the point of delivery made his statement, and was corroborated by the section-hands, but this rested the burden on the two engineers of the double-header, and they were both dead. Men gathered around street-corners and talked it over excitedly, and gradually a slow anger arose against the despatcher for issuing the order at all.

Even the railroad officials criticized him, although he had only done his duty in attempting to get the west-bound away on time. He was the only living person on whom the mob could wreak vengeance, and it was loudly proclaimed that it would not be healthy for him to show his face in that town again.

What a Man Did.

While the excitement was at its highest he came back, went to his office, and took up his duties as if nothing had happened. The coolness of the action, and the look of terrible suffering on his face, disarmed all criticism, and there was not a hand raised against him. He is still despatcher at the same division-point, and gradually the resentment against him has died out, leaving in its place a respect for his courage.

Suffering on account of a lapped train-order for which he was not directly responsible has fallen to the lot of many a railroad man. The case of Charley Parker, one of the best-known conductors on the New York Central, has attracted more than the usual amount of attention, as he has lived it down. According to the rules, he was responsible for a wreck equally with Billy Murray, the engineer, but he only did what many a conductor has done, relied on the engineer to follow out train-orders.

They were running the fast sleeper to Montreal over the Delaware and Hudson, along the picturesque route by the shores of Lake Champlain, when they were ordered, one night, to wait at Willsborough for a fast freight. The order

ALL STOPPED WORK AND WATCHED HIM.

was delivered several stations down the line, and Parker, giving it to Murray as usual, thought nothing more about it.

Two Men Who Forgot.

Unfortunately, Murray forgot, and went through Willsborough without stopping. Parker, busy collecting tickets, did not notice, and the first he knew of the lapped order was when the trains met.

Parker was held responsible, and dismissed from the service, but several years later he was taken back as brakeman, and after serving eight years in that capacity, and several more as a baggageman, he was given a passenger-train again. He keeps his eye on all train-orders now.

The same train which was wrecked on this occasion carried signals, one night, for a light engine which went to a tragic end. A freight was waiting on a siding; but neither Tom Durmody, its engineer, nor "Chalk" Barker, the conductor, saw the green light, or heeded the customary whistle. As soon as the passenger passed, they pulled out upon the main track and began to make time around the many curves with a string of forty-five cars behind. The light engine was on the passenger's schedule.

The operator saw the freight pull out, but knew nothing about the light engine until he saw it rounding a point three miles distant. At the same time the freight was rounding the point from the other direction, and neither could see the

other, although both lay in plain view of the operator helplessly watching them. Fascinated by the imminent catastrophe, he stood holding to a lever in his tower, hoping that they might stop in time.

Even before they crashed a sick feeling swept over him, and he was afraid he would faint. So he hurried to the wire and sent out word of the wreck before it happened. As he finished he looked up and saw the light engine's headlight flash high in the air as both engines plunged down the mountainside. When the wrecking-train, which he had ordered, came, they found him unconscious on the floor of the tower.

To deliver an order and, after it has run its tragic course, to sit as judge and fix the responsibility, rested as a duty on a despatcher who now handles two hundred trains a night. He was day operator and station-agent at a little town in the coal regions of Ohio, on a portion of the Ohio Central.

Mining had ruined the water in the neighborhood for engine use, and three or four strings of cars were kept busy supplying water for the whole district from a stream above Readeville. The town was on the grade, and the water-trains used to tear through it, the water chugging about the tanks and sending the train ahead faster and faster.

It was before the general use of air-brakes, and the operator kept as close watch on the uncontrollable trains as if they were mad bulls. One day a freight was due at about the same time as a water-train, so he sent word up the line for the freight-conductor to keep watch, and, if the water-train was behind, to have his rear well guarded.

The freight drew in, and the conductor informed the operator that he had dropped a flagman a mile up the track, who was to walk half-way and be picked up by the water-train. It sounded safe, but they did not know that the flagman had decided on his own hook to ride on the rear platform of the caboose until it reached Readeville and then walk back a hundred yards up the track.

Almost immediately they heard the water-train whistling for a crossing just above, then they saw the headlight; but, as it was turned directly on them, they could not tell how fast it was approaching. They thought it was stopping, but it was, in fact, bearing down forty miles an hour.

The flagman's hundred yards was past in a jiffy, and the caboose was struck at full speed, splitting it directly in two. At each particularly stubborn obstruction in a freight-car the tanks surged forward and pushed the engine through two or three more cars until the freight was eaten to pieces.

The flagman saw there was no use for him to remain around that railroad longer, so he walked into the split caboose, picked up his clothes, and was just leaving when the operator collared him.

"Before you go," the operator said, "you are summoned to appear before my court and give your testimony. It lies between you, me, and the con, and you've got to exonerate us. It's bad enough to kill an engine-crew, but you're not going to cost one of us his job."

What remained of the two train-crews formed a jury, found the flagman guilty, and the operator passed sentence ordering him to fade away."

HIRED BY VAN HORNE.

What a Little Inside Knowledge Did When an Expert Track-Builder Received an Offer from the Railroad Magnate.

"A MAN frequently betrays a good deal of his character by his unconscious personal peculiarities," said Sir William C. Van Horne recently to a group of his friends at dinner. "I found out to my cost, some years ago, that it is expensive to have any individual eccentricities that might be noted by casual observers, and taken advantage of by them if they knew their meaning."

Sir William is the overlord of many thousands of miles of railway. Some of them are in the Far North—like the great Canadian Pacific system, which he built, and others in the lands of perpetual summer—like the roads that gridiron the island of Cuba. In between are many other leagues of track over which he may have his private car or special train hauled free by simply signifying his wishes to the operating department.

In his travels Sir William is always on the lookout for good men—competent and reliable subordinates—the men who can do things—and he personally engages a great many. In nothing do his personal peculiarities stand out in greater relief than when he is negotiating with these. That is the feature of the story that he went on to tell about himself.

"Some years ago," said Sir William, "I bought a line of railroad in Michigan, and as soon as possible went down from Canada to make a tour of inspection of the property. As I was riding along I saw some pretty fair construction work on a railroad that paralleled my line here and there—a competing road that had just been finished.

The Ubiquitous Smith.

"'Who built that road-bed over there?' I asked some of the local gentlemen who were accompanying me.

"'Why, that is some of Smith's work,' they replied.

"Forty or fifty miles farther along I noticed as pretty a piece of bridge building as I ever saw—just about perfect. I asked who did it, and got the same reply, 'Smith.' After another stretch we ran alongside the competing line again, and a long fill with a big culvert in the middle caught my eye.

"It was beautifully shaped up and down in a first-class, workmanlike manner, that I could not but admire. Again I inquired who did it. 'Smith,' was the answer. And so it went.

"Whenever I would notice anything particularly good it would always be Smith that had done it. Smith, I learned, was the chief engineer of construction on that property, and was a man who worked tirelessly and well.

"I made up my mind that we needed Smith on some new work that we were going to do—work that required the highest degree of skill. So when I got back to my office I wrote Mr. Smith asking him to come and see me at his earliest convenience on a matter of importance.

"Now, Smith was a wise young man—so I learned afterward. It seems that he had an intimate friend in Toronto, and this friend also knew me pretty well—in fact he knew some things about me, as it turned out afterward, that I didn't know myself. So when Smith got my letter he came on to Toronto, and before seeing me went to call on his friend and showed him my letter.

"'What does Sir William want to see me for?' he asked his friend.

"'To offer you a job. What else did you suppose?' his friend replied.

"'How much do you think I ought to strike him for?'

"'What have you been getting?'

"'Six thousand.'

"'What would you go to work for him for?'

"'I think I ought to get about nine thousand.'

Pointers on Sir William.

"'Now, I'll tell you what to do,' said Smith's friend confidentially. 'You go over and see Sir William and draw him out. Talk along with him, and watch him very closely. Don't let a single one of his moves escape you. He has some very marked peculiarities when he is hiring a man like you, and if you observe closely you may be able to gage just how much he will stand.

"'After you have been talking a while, if Sir William gets up from his desk and walks around and sits half-astride the first chair he comes to, keep away from the question of money until you see what he is going to do next. If he gets up and goes back to his desk and settles down there, nine thousand is the top price he will pay.

"'If he gets up in a minute or two and commences walking up and down the floor, make it twelve thousand, and you'll get it. Don't be too hasty about naming your price, even while he is pacing the floor, though, for there is still another thing that he is likely to do if you get him up to the top notch of enthusiasm.

"'If he stops and perches on the big table with one leg tucked under him, you may know that you've got him up to the limit he can afford, and you can make your salary fifteen thousand, and he will agree to it.'"

Sir William paused here and took a sip of water. No one spoke for a moment. Then one of his guests, who could restrain his curiosity no longer, inquired:

"And how much did you hire him for, Sir William?"

Sir William Van Horne sighed, then smiled.

"Fifteen thousand," he replied.

THE TRAGEDY OF THE TOWER.

BY JAMES WILLIAM JACKSON.

The Troubles Howard Got Into Through a Mania for Holding Up His Superiors, and How He Was Cured.

THE half-mile of railroad track straight away to the left glistened in a scorching August sun. Waves of heat sucked in filmy curls out of the steel bands before the parallel rails disappeared around the sharp curve.

A way-freight crawled slowly and reluctantly up through the blinding glare to the sweltering little country station near the signal-tower. Some sleepy empties were to be drilled from the siding and replaced by loaded cars.

Howard, the boyishly slight young operator, yawned wearily as he glanced out of the window and observed the engineer of the freight hanging from his cab and puffing languidly at a corn-cob pipe while he waited for orders.

It was not a bracing outlook. Howard listlessly curled his arm on the table and laid his head down heavily. He remained so when Joe Smaltz, the freight conductor, came puffing hard up the steep stairs of the tower and waddled his pudgy, two-by-four body across the room.

"Mistake this for a hall-bedroom of a summer hotel, Howard?" Joe quizzed, in a genial voice. "Or did you just quit your job and forget to notify us before you went to sleep?"

Howard lifted his head without the trace of an answering smile.

"Tuckered out, and disgusted, Joe," he explained. "Been up I don't know how many nights."

Joe wiped off his tobacco plug carefully with the cleanest part of his jumper sleeve, took a generous bite, and patted down the gashed end of the plug before he restored it to his back pocket.

"How's your boy, Tom?" he demanded then sympathetically.

Howard put his elbow on the table and twisted his dark-skinned, attractive face out of shape as he leaned his full weight on the upreaching hand. His eyes looked unseeingly out of the window and he moved his head in a slight shake.

"The doctor doesn't promise anything," he said in a despondently low tone. "I—I was up with the kiddie all last night and the night before. His mother is down sick now. No luck at all, Joe—and no money. What's worse, I won't have any job by to-morrow."

He suddenly flopped his head back into his curved arm, burying his face from the sight of the kindly conductor. Joe drew close.

"Prayin', boy?" he inquired fearfully, as he put a grimy hand gently on the brown head of the young fellow. "Oh!" he observed, in a tone of relief; "it sounds a little like cussin'. That shows there's some spunk left, but it won't do no good. See here, now, we'll all stand by you after your job's gone. Don't lose your nerve."

Joe had been turning over his quid with nervous concern. Now he spat through the open window, a distance of a track and a half. "Pete wants to get over on the down track," he reminded, changing the subject suddenly.

Howard rose obediently and with a deep-drawn sigh, to throw open the proper switch. Joe gave him another fatherly, comforting pat, and left him. He turned his attention then to the levers, while the clanking, puffing engine and the rattling freight-cars drilled back and forth. But in the momentary intervals between throw-

ing the rails he leaned his elbow against the window-frame and stared at the floor.

Home matters would have alone justified his despondency. But there was the further fact that he was momentarily expecting an order of discharge and a successor in the tower-house.

It had all come about through a blunder in carrying out instructions. The strain of his boy's sickness and late hours had made Howard stupid—a little careless, no doubt, and unfit for continuous accuracy.

Nothing had happened to life or property because of his blunder. His own instant correction of the fault had prevented that. But the finest express on the line had been held up.

Unfortunately, the president was aboard, with some Western railroad potentates as his guests. The visitors had marveled for a while at the skilful handling of the road, and afterward had twitted the chief because the flier had been stalled by a cow of a freight which had no business to be where it was.

Ordinarily, the error would have meant thirty days' suspension, but the president had been warmly disturbed by the irritating defection on the prize division. Howard had already learned in a roundabout way that his discharge was seriously contemplated. It might come any minute. Every click of the keys startled him into expectation, and every stranger was mistaken for the new operator.

The superintendent of the division had come up on the freight. Finishing an errand in the station, he came into the tower and busied himself writing while the drilling went on.

Howard, attentive to the demands of the freight, was pulling and pushing the levers to manipulate the cars hither and thither. The train was late, the superintendent eager to get up the line; and the men, conscious of his presence, hustled almost recklessly to finish and be gone.

"They'll trip a car off the track first thing they know, though," Howard muttered, "the way they're smashing things back and forth."

THE CREW HAD SENT THE CONSIGNMENT ALONG THE DOWN-GRADE SIDING.

The siding ran down from the village crossing, and ended only where the tower squarely blocked the way. The empties had been withdrawn, and four heavily loaded flat cars of bridge timbers were making ready for a flying switch from the main track to the siding. While the engine, in obedience to a quick throw of a lever, kept the main way, the ponderous cars would speed down the run of track toward the tower-house.

"If they smash this tower again, as they did last year," Howard mused, "I'll

have company when I start out to look for another job."

Too much haste in just such an operation the previous spring had carried the end of a shifting freight right over the solid barrier built between the track and the tower. Howard could recall the picture as vividly as if it had happened only yesterday.

He could see in his mind's eye the litter of the demolished tower and the wreck of the cars, spread all over the down track. That track had been out of commission for nearly a half day.

But the signal-bell was ringing, and with a sigh, as his ever-recurring thoughts reverted once more to speculation concerning his boy and his future prospects, Howard turned to answer.

It was the block call for an express, just now somewhere up around the curve which hid the signal-post from view. Howard dropped the arm of the semaphore to show an open way. In a minute or two more the heavy line of cars—all Pullmans—would come thundering with mighty tread past the tower and with a screeching whistle for the lower crossing. Howard could hear the distant blast of its coming.

At that moment there was a yelling order or two up at the crossing. The commingling racket of hoarse voices, bumping cars, and shrieking brakes seemed to jar on the nerves of the absorbed superintendent.

"What are they trying to do with that old rattletrap of a clink-clanking outfit, anyway?" the irascible chief demanded, in a far-away voice and with wrinkling forehead. "Do they think they are having a wake?"

Howard turned his glance curiously toward the freight-engine. The man at the hand lever had let the timber-cars in on the siding, and had quickly thrown back the arm to keep out the engine. Just as Howard expected, the crew had sent the consignment along the down-grade siding with a hurry rush.

The haste had irritated Joe Smaltz. It was his bellowing voice that helped to disturb the superintendent. The picture of Smaltz, waving striped-jumper arms in wild rebuke, and shouting at the top of his voice, brought a faint smile to Howard's face.

The brakeman on top of the cars was falling all over himself in his eagerness to cut out some of the senseless speed. Howard turned whimsically to the superintendent.

"They'll bump both the tower and the corporation pretty hard if they don't slow up soon," he observed.

The chief muttered something irritably, but went on with his writing without turning to look. Howard continued to watch interestedly.

The brakeman on the timber-car had scrambled, with stumbling haste, at Joe's hoarse command, toward the end of one car. He jammed his short stick in a brake wheel and sent it whirling around. It fetched up hard and fast suddenly. The man was a giant of a fellow, with unusual strength.

"Wow!" Howard ejaculated in spite of himself. The seasoned stick had snapped off short. The brakeman was hurled backward by the unexpected accident, the wheel spun itself loose instantly.

With the brakeman lying flat on his back, out of control temporarily, the leaping cars ran wild, their speed undiminished. Only a short distance now intervened between them and the tower, and Howard knew they were bound to strike with the annihilating force of a tornado. The tower would be a heap of kindling-wood in another moment.

Big, two-by-four-square Joe, the conductor, appreciated the danger also. He could see Howard at the window. "Get out!" he yelled wildly, his arms going up and down like an insane semaphore in mad gesticulation.

Howard's ejaculation and the medley of yells at last brought the superintendent to his feet. But before he had quite turned to observe for himself Howard passed on Joe's warning. "Jump! Quick!" he shouted, in an excited pitch of tone.

The deep rumble of the oncoming cars and a half glance at them satisfied the superintendent. The tower door was wide open. A leap from the outside platform might mean a broken leg, but it would doubtless save from something worse.

Howard was close behind the superintendent. The cars would strike in an instant; the tower must certainly collapse. It was only a question of how completely either of them would escape going with it.

Just then Howard heard a sound that

not only startled him, but also brought to his mind again sharply the incident of the previous spring.

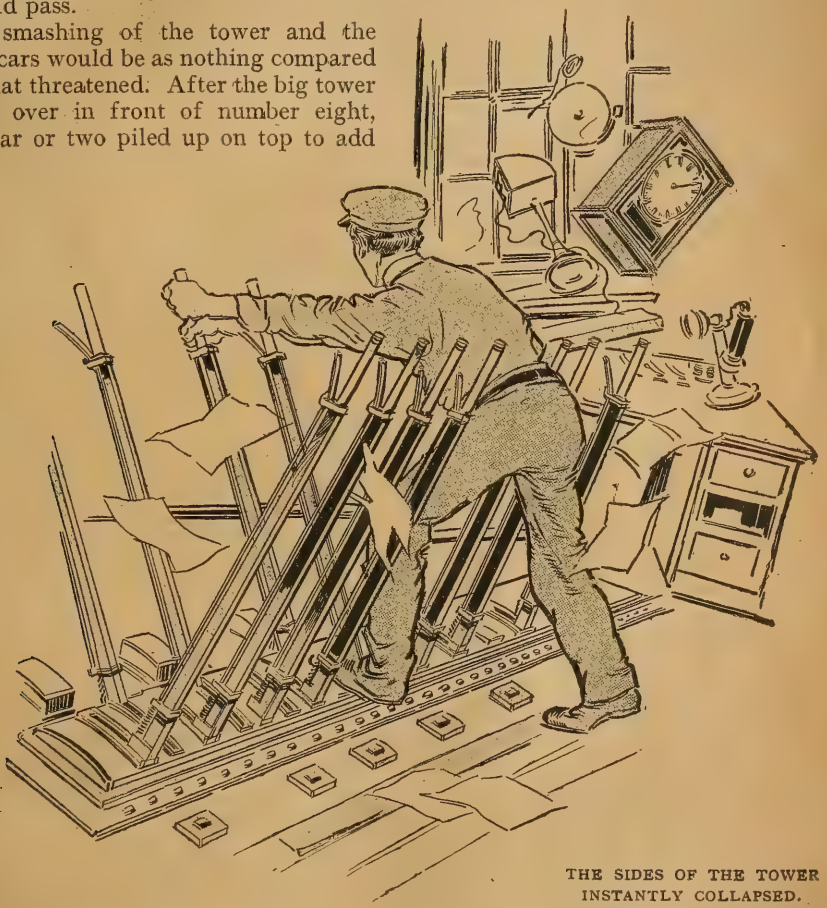
It was the whistle of number eight, about to swing around the upper curve. She would come flying by the tower in a second or two, bringing her luxurious hotel coaches along at a forty-five-mile clip, and as certainly as death the down track would pile up with wreckage before she could pass.

The smashing of the tower and the freight-cars would be as nothing compared with what threatened. After the big tower toppled over in front of number eight, and a car or two piled up on top to add weight to the obstruction, the express would augment the heap of wreckage with a twisting, crashing pile of timber, steel, and snuffed-out lives!

The train had not yet passed the signal when Howard heard the whistle. He realized the importance of that fact. That signal told the engineer to come right along at top speed. If the block were raised at once it might not suffice to stop the express, but there was hope that the engineer would see, and, with instant suspicion, diminish speed. A second—a half second more—and it would be too late.

All this did not go through Howard's mind in so many separate concepts, however. It was all like one flash of a biograph.

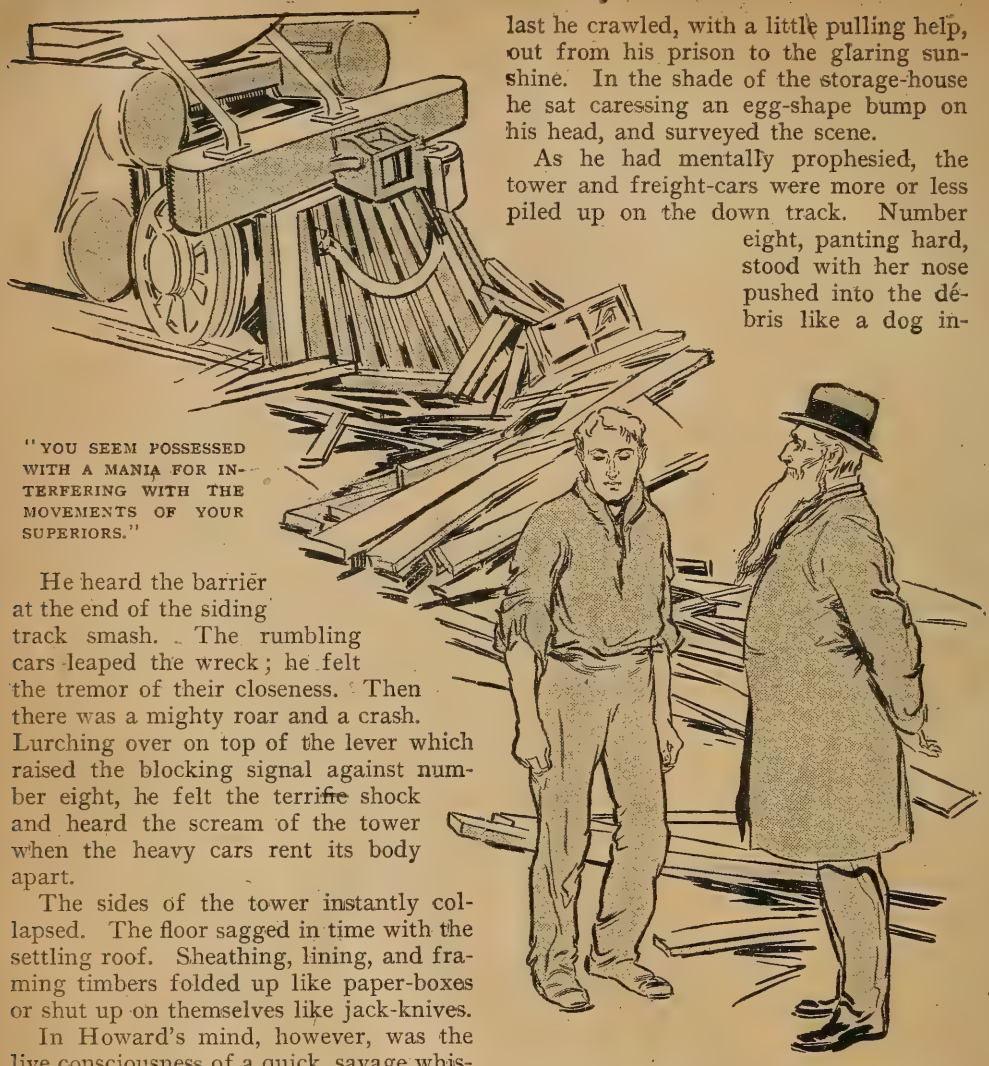
The superintendent was in the very act of leaping, while Howard, for infinitely less than a breath of time, balanced his life against the fate of the express.



THE SIDES OF THE TOWER INSTANTLY COLLAPSED.

As the superintendent sprang over the railing Howard turned with a whirl and jumped back to his levers. He struck at the right one by a blind instinct, without the thousandth part of an inch of lost motion.

The lever went back before his hurtling weight, and with it went a prayer that it might not be too late.



"YOU SEEM POSSESSED WITH A MANIA FOR INTERFERING WITH THE MOVEMENTS OF YOUR SUPERIORS."

He heard the barrier at the end of the siding track smash. The rumbling cars leaped the wreck; he felt the tremor of their closeness. Then there was a mighty roar and a crash. Lurching over on top of the lever which raised the blocking signal against number eight, he felt the terrific shock and heard the scream of the tower when the heavy cars rent its body apart.

The sides of the tower instantly collapsed. The floor sagged in time with the settling roof. Sheathing, lining, and framing timbers folded up like paper-boxes or shut up on themselves like jack-knives.

In Howard's mind, however, was the live consciousness of a quick, savage whistle from number eight, apparently enraged that the way should have been closed against her so unexpectedly. Then the broken bones of the stricken tower closed in around him and made him prisoner.

It seemed to kill him and bury him with the one action. In the general wreck of the building, which had been squeezed into a shapeless mass, much as an orange might be crushed to pulp in a strong, ruthless hand, he was as a mere seed of the fruit, gouged aside.

There was a pandemonium of voices as freight crew and villagers set to work digging him out from the maze of splintered and stabbing timbers. Howard grunted his relief and gratitude when at last he crawled, with a little pulling help, out from his prison to the glaring sunshine. In the shade of the storage-house he sat caressing an egg-shape bump on his head, and surveyed the scene.

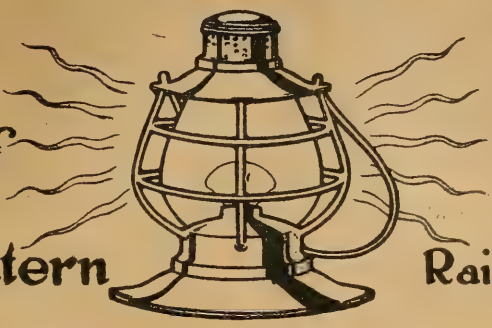
As he had mentally prophesied, the tower and freight-cars were more or less piled up on the down track. Number eight, panting hard, stood with her nose pushed into the débris like a dog inquisitively searching for a bone. The passengers had thronged out shudderingly for an inspection.

Just then Howard's attention was attracted by the approach of a gray-bearded, distinguished looking personage. It was the president of the road. To save his life, Howard could not refrain from a broad grin as he struggled respectfully but painfully to his feet. This was the second time within a week the chief had been delayed on this division.

"Young man," the president greeted him with apparent sternness, "you seem possessed with a mania for interfering with the movements of your superiors. What do you think?"

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department.

WHERE is the Simplon Tunnel, which I have heard is the longest in the world? What motive power is used in it, and what is the running time of the trains? I would like to know how the problem of ventilation is disposed of, as I understand that the tunnel has no air-shafts. —O. K. W., Philadelphia.

The Simplon Tunnel is through the Alps, between Switzerland and Italy. It is the longest bore ever made by man, the exact length being 12 miles, 458 yards. Both electric and steam locomotives are employed, the former weighing about 62 tons, and are capable of hauling a maximum load of 465 tons at a speed of 20 miles per hour, the current being taken through a bow trolley from an overhead wire. The time occupied by passenger-trains in negotiating the great tunnel varies in accordance with the direction in which they are traveling, and the kind of motive power employed. The quickest journey is made by the south-bound electric trains, namely 18 minutes, and the longest by the steam-hauled north-bound expresses, from 25 to 28 minutes. Directly a train enters the tunnel a canvas screen descends and seals the entrance. While this curtain is down, and it remains so until each train has cleared the tunnel, the enormous fans at each extremity are delivering fresh air into the parallel shaft, and at the same time exhausting the foul air from the tunnel itself. Every train is always running against a purifying draft, which almost attains the velocity of a head wind.

C. H. M., Indianapolis.—Without a doubt possibilities exist in the scheme indicated by your interesting letter, but we cannot exactly grasp how you can prevent delaying a prompt release. It would appear, if we correctly understand the idea on which you are working, that the brakes will drag, but of course your new valve is your own secret, and no doubt embodies the necessary features to counteract this possibility. The idea, so far as we can find, is new and of absorbing interest. If practicable it cannot fail in compelling attention.

HOW can defects, such as cracked plates or dangerous corrosion, be discovered in a locomotive boiler?—J. E. J., Boston.

Such defects are usually indicated by leakage when the engine is in service. They are shown by a little water or steam oozing

at the point where the defect exists. When the engine is cold a slight collection of incrustation or rust on the outside of the boiler will show that there has been a leak.

A defect in the fire-box will often be shown by a leak at the mud-ring. When a fire-box plate is cracked it usually opens suddenly, so that the leak shows at once. Flues are liable to leak when there is no other defect excepting that they need calking, but when this is done the flue-sheet should always be examined to see whether it is cracked.

Internal corrosion or grooving, unless it has become so serious as to cause an external leak, cannot be discovered except through an internal inspection of the boiler. To do this the dome-cover must be taken off, and a person must go inside of the boiler and carefully examine every part which is accessible. To make a thorough internal inspection all of the flues should be taken out.

When water is of a corrosive character, or contains much solid matter which is deposited inside of the boiler, such an inspection should be made frequently, but when the water is pure it is not essential to do it so often. Our personal opinion is that even in the presence of good water conditions all of the flues should be removed at least once in two years.

H. E., Ormond Beach, Florida.—In addition to building many of its own locomotives the Pennsylvania Railroad contracts about equally with the Baldwin Locomotive Works and the American Locomotive Company, which latter firm has a number of separate plants. Engines are not contracted for abroad for the use of this railroad.

K. A. L., Skagway, Alaska.—There is no difference in the flag signals used on California railroads and those of any other State. All trains while running must display two green flags by day and two green lights by night, one on either side of the rear of the train.

Two green flags by day and night, and in addition two green lights by night, displayed in the places provided for that purpose on the front of an engine, denote that the train is followed by another train, running on the same schedule and entitled to the same time-table rights as the train carrying the signals.

Two white flags by day and night, and in addition two white lights by night displayed on the front of an engine, denote that the train is an extra.

A blue flag by day and a blue light by night, displayed at one or both ends of an engine, car, or train, indicates that workmen are under or about it.

A red flag is used only to stop trains.

A yellow flag indicates "proceed with caution," and is commonly used by sectionmen while working on track.

ARE any roads in the Eastern States running trains with electric locomotives?

(2) What is the length in miles of these roads?

(3) What are their names, and where located?

(4) What is the pay for engineers running these trains?

(5) Do you believe that electric trains will shortly be substituted for steam on the Eastern railroads?—H. W. C., Brooklyn.

(1, 2, and 3.) The New York, New Haven and Hartford Railroad, from New York to Stamford, Connecticut, about 37 miles; the New York Central from New York to High Bridge and to North White Plains, about 24 miles; and the Baltimore and Ohio, from Camden Station, Baltimore, through the belt-line tunnel to Mount Royal Station, are the three prominent illustrations where this power is applied to all classes of train service.

(4) The pay for engineers is the same as on the steam roads: about $3.85 per day of one hundred miles, all over one hundred miles to be paid for in proportion. We can't say exactly what the rate is on either of the three roads mentioned, but in passenger service it will be found to approximate closely to this figure. Freight-rates are somewhat higher, generally four cents per mile.

(5) No, we never did think so, and developments of the past few years have not brought any change in this opinion. In a recent report of the Electrical Commission of the State of Massachusetts we note the following from Mr. C. S. Mellen, president of the New York, New Haven and Hartford Railroad, which is of much significance in view of the fact that this road is more heavily involved in electric transportation than any other:

"We believe we are warranted in saying that our electric installation is a success from the standpoint of handling the business in question efficiently and with reasonable satisfaction, and we believe we have arrived at the point where we can truthfully say that the interruptions to our service are no greater, nor more frequent, than was the case when steam was in use. *But we are not prepared to state that there is any*

economy in the substitution of electrical traction for steam; on the contrary we believe the expense is very much greater."

In a recent editorial comment the *Railroad Age-Gazette* says:

"It may be accepted as conclusively demonstrated that the New York Central and the New Haven roads are moving trains by electricity more economically than they moved them by steam, in their suburban district. To enable this to be brought about, however, extremely heavy capital costs had to be assumed and the charges on these capital costs make the entire operating cost, including overhead charge, far higher than it used to be in the days of steam operation."

It is quite apparent, after an entirely disinterested study of the general situation, that the problem of electrification will be approached if not with actual timidity at least quite gingerly by the large railroads. Electric operation, as compared with steam, shows to greatest advantage in urban and suburban passenger service, and it is viewed with sufficient confidence in that direction to warrant its gradual introduction, but from the present outlook there is little likelihood of its supplanting steam for trunk lines, and especially in freight service.

J. M., Buffalo.—If you have just been promoted after four years' service, and are running now, it seems to us that your interests would be better served by remaining on your own road, where you are thoroughly familiar with conditions and can certainly do better work than under strange environment.

The Grand Trunk Pacific is under construction, and its operating department is not fully organized as yet. If you will address E. J. Chamberlin, vice-president and general manager, Montreal, Quebec, he will no doubt advise you in regard to the opportunities in your line on the western end of the road. There might be an opening, and if anywhere, it should be on a new railroad.

The railroads of Florida have employed engineers in the past, and no doubt continue the practise, especially on divisions where colored firemen are employed and who are not eligible for promotion. You might address the following master mechanics of the Atlantic Coast Line, at the points named: J. Paul, High Springs, Florida, and H. R. Stevens, Sanford, Florida.

S. McC., Butte, Montana.—There is no real uniformity in the attitude of the various roads toward the use of glasses by engineers. It would naturally depend upon the character of the eye trouble which makes their use necessary. The railroads, as a whole, are inclined to be reasonable in this matter, and, if vision is sufficiently acute for the requirements of the service, no objection would likely be made to the use of glasses merely for reading purposes. Under the general organization of railroads it would not be possible for a yardmaster to become a conductor, unless of course he went on braking as a new man, and so on up.

E. N. L., Sandown.—The Denver and Inter-Mountain Railway is now known as the Inter-Mountain Railway. C. F. Propst is vice-president and general manager. Address: Denver, Colorado.

WHY can an electric locomotive start much faster than a steam one?

(2) A claims that the engineer of a steam locomotive can make a quicker start with his train than is usually in evidence. B insists that if started any faster than the usual practise the engine would be strained. Please explain this.—W. V. Z., Kansas City, Missouri.

(1) Electric locomotives are generally built with every axle directly driven by a motor, and thus the total weight is made available for adhesion. This naturally results in a more effective start and more prompt acceleration than in the instance of the steam locomotive, where the power is transmitted through the medium of rods.

(2) Starting a locomotive is much dependent on the weight of the train and the condition of the track, not to mention schedule requirements. It is impossible to strain the engine, in the sense which B views it. If too much steam is admitted the wheels will simply slip without doing any harm in particular, except that the fire may be torn. You can safely depend on it that all locomotives you have seen started were properly put to work under the conditions present at the time, and which of course were duly weighed by the engineer.

Would advise you to ask at the information window in the Union Depot at Kansas City in regard to your third question, which we did not include above. We are of the opinion that the number is nineteen roads, but our record is hazy.

WHEN the Pennsylvania Railroad commences operation with its electric locomotives where will they be uncoupled from the train and the steam engine put on? Will they keep the depot which they now have in Jersey City after the change?

(2) How does an oil-burning locomotive operate? Do they have burners the same as an oil stove? How many gallons of oil does the average oil-burner use in an hour?

(3) How many gallons of water does the average compound locomotive consume in an hour?

(4) Will electricity ever take the place of steam locomotives, or the mono-rail the place of the two-rail track?—C. F. E., New York.

(1) So far as we can learn, the plan under consideration at present is to cut the steam locomotive off the train at Harrison, New Jersey, and use the electric engine thence to Sunnyside Yards on Long Island; that is, in either direction these points will mark the limits of the electric zone. It is all conjecture so far in regard to the present depot in Jersey City. Rumor has identified the Erie Railroad with it, after the Pennsylvania vacates, but this is scarcely probable, as the Erie is at present spending a great amount of money in the vicinity of its own Jersey City terminal. The Lehigh Valley and the New York, Susquehanna and Western are tenants of the Pennsylvania at Jersey City, but it is the intention of the Erie to accommodate the latter road in its Jersey City terminal, and the Lehigh Valley has scarcely sufficient passenger business to warrant taking over the entire Pennsylvania terminal. If any decision has been reached in this matter nothing has been given out as yet.

(2) Irrespective of the difference in fire-box arrangement to burn oil instead of coal the oil-burning locomotive is in all other respects similar to the coal-burner. There is some difference in the size and shape of burners, but, as a rule, only one burner is employed, having a slot in the end about 3 inches long and ¼ inch wide, to which the oil flows from the tank.

The oil emerging from the slot is ignited and comes in contact with an atomizing steam-jet which spreads the blazing globules into a roaring fire. The latter is rather intermittent in action and, therefore, hard on flues and fire-box, subjecting them to varying temperatures.

We cannot answer your question relative to the gallons of oil consumed per hour, as this would be dependent on the size of the engine and the conditions under which it was working. The tanks carry from 2,500 to 3,500 gallons, and these sizes are sufficient for a ten-hour or longer run with a freight-train.

(3) Would depend upon the size of engine, weight of load, and speed. There is no such thing as an average compound engine. They are supposed to be more economical with water than a simple engine. Quantity would vary with conditions.

(4) See answer to H. W. C., this issue. As for the mono-rail: no.

H. R. W., Ottawa, Canada.—The Burlington is a member of the Western Passenger Association. The other two roads you mention, the Great Northern, and the Northern Pacific, are members of the Trans-Continental Passenger Association. In regard to the local passenger rates per mile in Wyoming, Montana, and Idaho this should be taken up direct with the lines traversing that territory, and they will no doubt be glad to furnish the information.

N. G. T., Milledgeville, Georgia.—The longest total wheel-base on record for a freight-engine and tender is 83 feet 6 inches. This is on Southern Pacific engine No. 4000, which was fully described in the December Light of the Lantern. This dimension, as we have before explained in this department, means from the center of the first axle on the engine to the center of the last axle on the tender. We have no figures for the total length from the tip of the pilot to the rear end sill of the tender. To reckon with this might imply the addition of ten or more feet.

J. M. K., New York.—Both engines which you mention are representatives of distinctively modern practise. There is no difference in the cost, about $20,000, but the Erie engine is the more powerful, provided, of course, that you refer to its Pacific type, numbered in the "2500's."

IN fitting connecting-rod brasses A contends that the brasses should be fitted so that when the key was driven the brasses would meet brass and brass without pounding. B argues that the brasses should be fitted so that the two halves will be 1-16 of an inch apart when the key is driven.

(2) A argues that the actual horse-power of an engine cannot be ascertained without an indicator test or subjecting the engine to a brake test. B's theory is that if the stroke and diameter of the cylinder and the boiler-pressure is known the horse-power can be calculated.—W. M., Winnipeg.

(1) A indicates the best practise and the one generally followed, especially in the instance of heavy power. In addition to his correct view, care should also be taken to allow a little clearance where grease is used as a lubricant instead of oil. This is

because the pin must warm up slightly to start the grease running, and all brasses running on pin grease are always warm in comparison to those on oil—hot, almost.

This clearance in the bore of the brass of say 1-32 of an inch, on a large, main pin, will take care of the expansion mentioned, and which without it would likely clamp the brasses on the pin with the usual result. There was a time, years ago, when power was light and better work done on engines, when brasses were filed as B suggests, but such a practise in the present day, when engines are run in the chain-gang and deprived of the care of regular engineers, would prove most disastrous.

(2) In this instance, B has the better of the argument, as with the figures known it is not necessary to resort to the tests mentioned. Horse-power is the product of the force multiplied by the distance through which the force moves in one minute, divided by 33,000. In the case of a two-cylinder simple engine, it is to be found by multiplying together mean effective pressure, the length of the stroke in feet, the area of the piston in square inches, and the number of strokes per minute, dividing the product by 33,000 and squaring the result. If you will refer to answer to G. A. J., in the Light of the Lantern, November, 1909, issue, you will find the formula quoted and explained.

M. K. T., Junction City, Kansas.—Both the Burlington and the Santa Fe subject all applicants for the train service to the usual eye test, but we cannot speak authoritatively on whether a physical examination is a requisite or not.

WHY is the engineer not on the left side of the cab, as on that side the levers, throttle, gage-cocks and everything else would handle much easier?

(2) Why was the diamond shape smoke-stack discarded?

(3) What is the address of the *Locomotive Firemen and Enginemen's Magazine?*

(4) I have invented a kind of valve-gear for locomotives, which derives its motion from the cross-head only, the link being stationary. It is the valve-stem that moves up and down the link so as to give its motion (forward or backward, cut-off), to the valve. Do you think I could get a patent on it?

(5) Give the names and addresses of master mechanics on the Canadian Northern. —R. F. P., Grand Anse, New Brunswick.

(1) That time-honored custom puts him on the right side is about the only answer we can give. It would be as difficult to say just why as to explain why so many British and foreign engines have the engineer on the left side, and why their general practise is to run their trains "left-handed," whereas ours uniformly run on the right-hand track. When you walk on the Strand you turn to the left; while on Broadway, to the right.

It appears more to the point to have the engineer on the right side of the cab in this country, as we run on that track, and all signals and stations are on that side of the track; assuming, of course, a double-track road. The engineer can make better station stops and better water-plug stops than if the reverse was the case. It is a matter of little moment about the levers, etc., as they can be handled as rapidly under the present arrangement as though on the other side. At all events this particular point could never attain the prominence of being an objection.

(2) This form of smoke-stack for use on wood-burning or bituminous coal-engines, was in extensive use before the innovation of the extended smoke-arch. Since then they have fallen into general disuse, as the smoke-arch proper now catches and retains the sparks, which work was formerly done by the peculiar internal arrangement of the diamond stack itself.

This smoke-stack consisted of a central pipe and a conical shaped cast-iron plate called the cone, or spark deflector, which, as the latter name implies, was intended to deflect the motion of the sparks and cinders so as to prevent them from escaping into the open air while incandescent or "alive." A wire netting was also provided, intended as a sort of sieve to enclose the sparks and cinders, and, at the same time, allow the smoke to escape. These were removed at the end of the run through a hand hole at the base of the stack.

This general arrangement was cumbersome and unsightly, and when it was found that a simple arrangement of netting within the smoke-box would serve to accumulate the sparks within the latter and permit the use of a straight stack, it was generally adopted.

(3) Indianapolis, Indiana.

(4) This is evidently a form of "outside valve-gear," prominent examples of which in present practise are the Walschaert and the Joy motions. The former derives its motion in combination from a crank-arm on the main crank-pin and the cross-head, while the Joy derives its motion from an arm attached to the main rod near the wrist-pin. As your motion is from the cross-head solely, as your question infers, it would seem that

the idea can be patented as not conflicting with these others. We could tell better, however, if we could examine a drawing of the motion. Consult a reliable patent attorney, who will look it up for you at nominal cost.

(5) The master mechanics on the Canadian Northern are: A. Shields, Winnipeg, Manitoba; J. Klye, assistant master mechanic, Edmonton, Alberta; and G. H. Hedge, assistant master mechanic, Winnipeg, Manitoba.

H. G. W., Sparta, Minnesota.—The only woman chief train-despatcher of which we ever heard was Miss Edith Jarnigan, of Chattanooga, Tennessee, who held down this job on the Chattanooga Southern, and may possibly be there yet, but we have no definite information covering the last three years.

H. W., Annapolis, Maryland.—On roads where the telephone has been substituted for the telegraph in train despatching, the former telegraph operators retained their positions, becoming telephone operators. In addition to their thorough familiarity with the train service, the spirit of fairness would dictate this without any other consideration.

ARE there any iron box cars? When was the first one built, and what road uses them?—J. J. H., Louisville, Kentucky.

Forty-six years ago the Baltimore and Ohio built 200 box cars of one-eighth inch iron. The Union Pacific built in its own shops the first two embodying modern practise in the early part of 1907. They are in very limited use. General merchandise, or anything else that is affected by high temperature, cannot be shipped in them because they absorb so much heat. It may be said that their use so far has been largely experimental.

R. C. B., Pomona, California.—In view of the fact that freight-cars are interchanged all over the country, a lock on the doors would be of little value in protecting the contents. Because of this interchange there must necessarily be a multiplicity of keys, and, besides, the lock would have to be standard. The present car seal is better. If the train is carefully inspected at each division point, according to rule, its condition will indicate to within one hundred miles or less the territory where the car was entered. On the other hand, a lock could be just as readily locked as unlocked, and the car might go two thousand miles after, before a robbery was discovered.

WHY are engines on fast through trains changed at the different division points? Does the time required to oil the engine have anything to do with the changing, or is it due to the fact that the bearings are heated?—C. E. L., San José, California.

They are changed frequently because after a hundred miles or more the fire becomes dirty and there may be an undue accumulation of sparks in the front end, both of which conditions operate against steam-making. In addition to this, if the run was prolonged additional coal would no doubt be necessary; if not, men would have to be placed at designated points to shovel ahead the coal remaining on the tender, so that the fireman could reach it without handling it twice. All this requires time and money.

If an engine is run over two divisions instead of one, which your question implies, it places it in the hands of two crews on the one run, as each crew runs only on its own division. This dividing responsibility for the engine has not been found to work out very well in practise.

Up to recent date, the Erie Railway ran the same engine through from Jersey City to Susquehanna, Pennsylvania, about 193 miles, although the crews were changed at Port Jervis, New York—89 miles. Some years ago, the Southern Railway ran the same engine from Alexandria, Virginia, to Danville, Virginia, 249 miles, the crews being changed at Charlottesville, Virginia, 108 miles from Alexandria. The Atchison, Topeka and Santa Fe once ran the same engine regularly between Winslow, Arizona, and Albuquerque, New Mexico, 286 miles.

All of these, however, have abandoned the practise in favor of the shorter division and to keep the engine in the same hands while it is on the road. The question of oiling has little or nothing to do with it. It is not a fact that the bearings are hot, as your letter suggests. If everything is running all right there is no more liability of a hot bearing in two hundred miles than in one hundred.

J. S. S., Wichita, Kansas.—The Pennsylvania and the New York Central roads return a portion of the money paid for extra time on their eighteen-hour trains in the instance of these trains arriving late at their destination. The rate is $1 per hour. It is safe to add, however, that neither of

these companies has disbursed a fortune in this manner, as the trains are uniformly on time. We think that these are the only two roads making such refund.

A. R. S., Hoosick, New York.—Two engines are of course employed because one would not suffice to haul the train on schedule speed. Their use is often unavoidable where extra cars are added, although it is evaded wherever possible, as it adds greatly to the expense of getting the train over the road.

WHAT steam roads enter Baltimore, Maryland?

(2) What is a blower on a locomotive? Is it operated by air or steam?—F. S. Greenville, Ohio.

(1) Philadelphia, Baltimore and Washington; Northern Central; Baltimore and Sparrows Point (Pennsylvania system); Baltimore and Ohio; Western Maryland; Annapolis, Washington and Baltimore; Maryland and Pennsylvania.

(2) It is a pipe to convey steam from a valve on the boiler-head to the exhaust tip, or base of the stack, in order to create a draft and stimulate the fire when the engine is standing. It is also used to diminish black smoke on approaching a station, when steam is shut off.

In reply to your other question, which we did not reproduce above, would suggest that you take this matter up with the nearest local secretary of the brotherhood mentioned. He will give you better information than we can, as we are unfamiliar with its constitution and by-laws.

P. H. S., Seattle, Washington.—No available figures on box cars. You might secure it, however, from J. W. Taylor, secretary, Master Car Builders' Association, Old Colony Building, Chicago, Illinois.

WILL you inform me what the Telegraph Operators' Federal Law is, which went into effect in 1907?—H. D. G., Gowan, Minnesota.

The federal hours of service act, to which no doubt you refer, was approved March 4, 1907, to become effective one year from the date of its enactment. That feature relating to telegraph operators is best explained from the following administrative rulings of the Interstate Commerce Commission issued for the proper interpretation of this act:

Section 2, par. 3: "A telegraph or telephone operator who is employed in a night and day office may not be required to perform duty in any capacity or of any kind beyond nine hours of total service in any twenty-four hour period."

Just prior to March 4, 1908, there was a concerted effort on the part of some railroads, some fifty-six of them filing formal petitions, to secure an extension of the time within which they should comply with the law. The commission, after full hearing as prescribed by the act, decided that the carriers had failed to establish the "good cause" prerequisite to the extensions desired, and their petitions were, therefore, on March 2, 1908, in all instances denied. The law became effective on March 4, 1908.

C. T. M., Boulder, Colorado.—Air or tank hose is made of alternate layers of rubber and canvas, although the latter hose is frequently reenforced by a coil of wire extending its entire length. There is no such thing as all-steel hose for these purposes, at least as a standard practise.

R. E. C., Pittsburgh.—We don't believe there is any road, except possibly in some foreign country, where a correspondence school certificate would serve to procure a job running an engine. All roads insist on previous experience as fireman, or if they employ an engineer he must show that he has run an engine. In this country, he could never have run one unless he had fired.

WHAT are the newest railroads in British Columbia and who are their chief engineers?—G. D., Baltimore, Maryland.

Grand Trunk Pacific, B. B. Kelliher, Winnipeg, Manitoba; Canadian Northern, T. Turnbull, Winnipeg, Manitoba; Spokane International, E. C. Taber, Spokane, Washington; Temiskaming and Northern Ontario, S. B. Clements, North Bay, Ontario; Niagara, St. Catherine and Toronto, E. F. Seixas, St. Catherines; Quebec, Montreal and Southern, F. D. Anthony, Montreal, Canada; Atlantic, Quebec and Western, W. L. Browne, New Carlisle, Quebec; Algoma Central and Hudson Bay, C. N. Coburn, Sault Ste Marie, Michigan; Great Northern, ... Stewart, Seattle, Washington.

WHEN "WEARY WANDERLUST" WRITES.

The Signs and Symbols Which Enable the Wandering Brotherhood of Boes to Size Up the Inhabitants and Railway Chances in a Wayside Village.

A SMALL station in the Far West was once presided over by a young woman, Miss Ethel Waters. She was prepared for the boes that continually floated down the pike in her direction, always meeting them with a pleasant word and guiding them on their way with a pleasant smile. But one day her faith in mankind received a severe shock. A Weary Wanderlust, with a *Romeo-and-Juliet* disposition, drifted along. After resting and chatting for a while, he began to pour out a stream of violent love to the lady-agent. At first she laughed, but Willie was deadly serious.

His outburst became so violent that she had to call in a freight-hustler who was loading a near-by box car. In a few minutes Weary Wanderlust was doing his familiar pirouette along the ties. His young romance had died a sudden death.

However, the next morning when Miss Waters came to open up she was surprised by a sign that had been drawn on the door.

"Who put that there?" she asked an early operator, as she glanced coyly at the marks she felt were meant for her.

"The tramp that we threw out yesterday," was the reply, given with exaggerated pity for the supposed love-sick swain.

Miss Waters smiled, believing the sign to be the last love-message of her admirer from hoboland. To her the sign seemed to be a heart pierced by two arrows. Of course there is a distinct difference between a real, live, unwashed hobo making ardent advances to one, and such romantic long-distance talk as this. Therefore Miss Waters let the sign remain. But what she really beheld was this:

It was not a heart, but a circle, that was pierced by the two arrows. And among free-riders that signal means: "Get out of this town quick as possible."

Tramps have many other signs. For instance, when a man fresh from the rods is confronted by this,

on a sign-post or fence in or near a railroad yard, it means: "Yardmen here all on the watch-out."

The following signal means: "Chain-gang in next town. Get off here."

Finally, here's a signal that all free-riders are glad to meet:

It means, literally, "Dead easy here." Liberally translated, this hieroglyphic says: "You can leave the train here without fear of being molested. Taxpayers willing to support you. Plenty of free lunches and bread-lines. No railroad detectives."

Signals That Are Perfect.

BY PETER MULLIGAN.

FOR nearly three thousand years the semaphore has held a proud place in the communicating facilities of the human race. At the present time the millions of traveling human beings and the billions of dollars' worth of commerce that it guides and guards give the slender ash-blade a unique position in the story of our development. But, in spite of its past service and present preeminence, it would seem as if the day of its decline has arrived. Electric signaling has been followed by electropneumatic, and this in turn by cab signaling, until one might easily believe that the time is near when a deaf, dumb, and blind man can run an engine with perfect safety, if not with speed.

Things That Have Happened and Are Happening To Make Railroads the Safest Place in the World, and How Signaling Has Progressed Until It Is Both Signaling and Controlling.

THE first semaphore was used in Greece before the birth of Christ. With the aid of its long blade, a system of optical telegraphing was carried on which flashed messages from hill to hill, and a code developed which was used on the Mediterranean down through the Middle Ages. At the time of the French Revolution it had come into common use in northern Europe, and the Prussian system of the early nineteenth century necessitated the use of four blades permitting four thousand combinations.

But, after the invention of the electric telegraph, the semaphore would have been forgotten if it had not been for its value in signaling trains. Many other forms of signals were tried before the semaphore was adopted as the standard for railroading, the most common of which was a disk, half solid and half perforated, giving it the appearance of a waffle. When the disk showed the solid portion, the road was clear; when it revolved so that the perforated section appeared, the track was busy.

Sir Charles Hutton Gregory was the first to think of the use of the semaphore

in connection with railroads, and he erected one at Charing Cross in 1841. The blade was placed at the top of a pole as at present, but it was not balanced, and normally hung down at "clear," unless the signalman pulled it up with a cord, which he fastened about the pole with a slip-knot.

The First Semaphore.

When the danger had passed, he loosened the cord and the semaphore dropped down. Since that time the horizontal position has always indicated danger and the vertical clear.

From this crude device has developed the whole intricate system of modern signaling. Other forms have been installed, but none have stood the test of comparison, and the semaphore has long since come to be recognized as the standard. It has held its position undisputed until now, when the recent developments in cab signaling threaten eventually to do away with it altogether.

In the beginning, the signal was used merely to show a time interval. There was no means of knowing how far a train had progressed until it reached the next station, and then only if there were a telegraph operator there. The practise was to show a danger-signal until a train had left the station five or ten minutes, according to its speed, then indicating "clear," trusting to luck that the train had kept going. Rear-end collisions were common, in consequence.

Birth of Block Signaling.

The necessity for greater safety caused the early development of block signaling. The idea then, as now, was to divide the track into sections, or blocks, never permitting more than one train on any one block.

Under permissive signaling, this rule is regularly violated; but the principle involved remains intact, although its application is not strict. Men stationed at switches and irregular intervals were the original dividing-points at which blocks ended and began, but they soon gave way to definite markings, the operator at the farther end of the block telegraphing back when the block was clear. The trains waited at the entrance to each block until the conductor or engineer had received a written message giving him permission to proceed.

This system was well enough as long as the traffic was not heavy, but it required too much track for each train to be economical on a busy road. The first development with the purpose of securing speed was the distant signal invented in the early fifties, and erected as an experiment at Meadowbrook, near Edinburgh.

"Distant" Blade Arrives.

This proved so successful that it was soon generally used. It was placed down the track in advance of a station, and gave the engineer information whether it was safe to enter the block in which the station was located.

The distant signal was made almost from the first with a "fishtail," or "swallowtail," to distinguish it from the home signal, which was square at the end. Like the home signal, it was operated by hand, a long wire extending down the track to the semaphore pole, connecting with a crank, which lifted the blade. As the distant signal was often out of sight, the signalman was by no means certain that the blade had fulfilled its function when pulled; the home signal he could see and correct if it failed.

For many years all signals were worked by hand. The lever came into use instead of the handle on the end of a wire or rope, but no mechanical appliance was found successful for a third of a century.

Electricity was suggested as early as 1842, and was put into operation on the Eastern Counties Railway, but electrical appliances were so uncertain in those days that a disaster arose from its use in 1844, which caused its abandonment. A signal which should have gone to danger failed to work, something going wrong with the current, and two trains collided with a loss of more than twenty lives.

Electricity's Bad Start.

Electricity was at once set down as unreliable, and the horror of the tragedy hung over the railroad world so long that it was not tried again for many years.

Then the plan was revived to some extent in America.

When the change once came, the gap between manual signaling and automatic signaling was made at a leap. The old system, with a man working both home and distant signals with a lever, continued in operation with hardly an improvement until 1871, when the first automatic was placed in operation on the Eastern Railroad of Massachusetts, now part of the New York, New Haven and Hartford.

The Science Revolutionized.

This brought about a revolution in the whole science of railroading. Instead of having a man with the lever do the work, the train passed over a track instrument, which lay close beside the rail and was pressed down by the wheels of a passing train.

As the track instrument was depressed, it operated a bar connecting with a crank at the base of the signal-post, turning it so the signal went to danger. As the train passed on and out of the block controlled by the signal, the track instrument arose, the bar shot back, and the blade dropped to "clear."

The track circuit system has since entirely superseded track instruments. John D. Taylor, of Chillicothe, Ohio, took out the first patent on an electrical signal, and tried it at Cincinnati in 1891. Although it was quite successful from the beginning, it was not taken up extensively until 1900, when Taylor had secured sufficient capital to manufacture on a large scale. Now all automatic systems are operated, in part, by electricity.

Combining Two Systems.

The principle of the electric automatic system is simple. A current is generated beside the track at one end of the block and communicated to one of the rails. It passes from rail to rail through the fish-plates and special bonds placed there for the purpose until it reaches the end of the block, where an insulator between the ends of the rails prevents the current going farther.

A wire at that point connects it with a relay in the form of an electromagnet through which it conveys the current to the other rail of the track. The current then passes back through the second rail to the generator.

When there is no train on the block, the electromagnet in the relay is energized by the passing current, and an armature, through which the current passes, is held tight to the magnet. The armature will remain where it is unless something short-circuits the current; and as long as it remains, the home signal, which is operated by the current through another electromagnet in the signal-box, will be at normal.

How It Works.

As soon as a train strikes the rails, the wheels pick up the current of electricity in the track and send it from rail to rail across the axle, instead of by the longer route through the relay-box. A portion of the current continues to pass through the relay-box, however, but it is not strong enough to hold up the armature, which drops.

When this happens, an armature in the signal-box also drops, making another connection and causing a different current, which sets the machinery in the signal-box in operation.

All systems are not the same, but the principle of breaking the circuit does not vary. In all, the dropping of the armature creates an opposing current which actuates the machinery enclosed in the signal-box.

In the case of the home signal which is at clear, the dropping of the armature sends a current into the signal-box which energizes various cogs and cranks, moving the blade to danger. In some systems there are two armatures in the signal-box, one a clutch magnet, which pulls up the signal by the strength of its clutch.

Cannot Go Wrong.

When the train passes off the rails and out of the block, the current through the relay is restored, the armature is lifted, and the current in the signal-box is cut off. The whole mechanism is immediately deenergized, and the wheels in the signal-box are revolved in the opposite direction by the weight of the blade,

which, having nothing to support it, falls back to its original position.

In the normal danger system the blade rises to vertical and falls to horizontal. In a normal clear system it rises to horizontal and falls to vertical. It depends upon how the blade is fastened to the post.

The distant signal is operated in the same way, but it receives its current by the passing of the train on a more distant portion of the track, perhaps in the fourth block beyond. The train entering the block with which the distant signal is connected short-circuits the current and causes the armature to drop simultaneously with the home signal at that point.

The new current created by the dropping of the armature communicates the train's approach to the distant signal several blocks ahead, and it flies to caution.

As the train passes into the next block it picks up the same current again, and, although the train passes out of the first block, the current is maintained by the corresponding relay in the next block, and so on until the train reaches the block at which the distant signal is situated.

As each distant signal reaches back through several blocks, a multiplication of relays is needed. These are provided for all in one relay-box in each block by adding an electromagnet for each additional distant signal.

Would Work Any Distance.

In practise, distant signals do not give notice of a train's approach more than four blocks distant; but it would be possible to do it over a much greater stretch of track.

As soon as the train has passed into the block at which the distant signal is situated and passes out of the preceding block, the current which operates the distant signal is shut off, and it falls to its normal position by gravity.

In a double-track road there is much less complication of wires and relays than on single tracks, where trains are traveling in both directions. If the signals were communicated only from block to block on a single track, a head-on collision might occur at the entrance to any block, as the distant signal only indicates caution, and the engineer does not bring his train to a stop until he sees the semaphore on the home signal at danger.

To avoid this risk the signals overlap into the adjoining blocks, a train's approach not being heralded from the time it enters the block, but half-way into the block ahead. At the warning, the train which is in sight of the home signal comes to an abrupt stop, and the other one, which is slowly approaching, is brought to a standstill as soon as it sees the home signal at danger.

One Blade for Several Signs.

The customary arrangement of having two signals on each post—the top one for the home signal and the lower for distant signal, has been modified in several new systems installed, one blade doing the work of two. Instead of the upper blade remaining unmoved and the lower one operating while the train is approaching, and the upper operating and the lower dropping as the train enters the block, the single blade moves to an angle of forty-five degrees for caution and to horizontal for danger.

The mechanism is not radically different where one blade is used instead of two. There is, in fact, an economy of power, and, where it is being used, it has been found to be more effective than the double system, as it leaves no room for confusion in the mind of an engineer on a road where there are several tracks.

In a normal clear system the home signal remains at vertical at all times when the track is clear. In a normal danger system it remains at danger all the time until a train enters the block in advance, and then it goes to clear. Additional wiring is necessary to communicate the train's presence in the block ahead, but otherwise the system is not different from the normal clear. In both systems the semaphore-blades, which are made of ash and are light, balance so as to fall to danger if anything goes wrong.

Same Principle in Both Systems.

The greatest care in the making and installing of the semaphore systems is needed, as they are left to operate by themselves, and receive only the occasional attention of the maintainer and

batteryman. Faulty construction must be avoided; but this is not difficult, as there is only comparatively simple machinery in the signal-box, which alone could prevent the signal falling to danger.

If the wiring should be defective, or any accident occur to the batteries or relays, the semaphores would all go to danger and remain there.

Elaborate Endurance Tests.

At the factory of the Hall Signal Company at Garwood, New Jersey, the first semaphore made by this company is still standing in the testing-room. All about it are dozens of other semaphores and signal-boxes of later design just completed and left there to operate for a week continuously to give any defects an opportunity to show themselves.

The original is now operated over 700,000 times, and has not yet shown any signs of wear. This gives some idea of the life of the mechanism. If it had been out on a track over which a hundred trains passed daily, it would have taken twenty years to reach the same point.

After a system is installed the signal engineers of the railroads give a further test by operating it a week without the semaphore-blades, or with orders to the engineers to ignore the signals. If at the end of that time it has not developed any failing, its future rests with the maintainer.

There are 11,000 miles of railroads controlled by the automatic system as against 50,000 operated by the manual system with the aid of telegraph and written orders. No transcontinental system is as yet fully equipped with the automatic system; but, under the Harriman régime, the Union Pacific was changed to the automatic over thirty-five per cent of its length.

The Automatic Stop.

Danger from defective signaling is practically removed by the automatic system, but it is still possible for the engineer to run past signals. This he could not do if the automatic stop were in general use; but it is installed in this country now only on the Subway systems of New York and Boston.

In the Subway systems, as soon as a train runs upon a block occupied by another train, a trip lifts up from the side of the track, so placed as to strike the end of an air-brake coupling which hangs down at the side of the forward wheel. If the engineer does not see the signal, or is for any reason disabled, the trip strikes the loose coupling as the train speeds past, throwing it open and setting every brake on the train.

There is no possible way to avoid that trip. There is stands, inexorable as long as there are wheels on the block. As soon as the train leaves the other end of the block the trip drops, and the track is clear again.

Eliminating Human Element.

So far, experiments in this country with the automatic stop have not proved successful, as the trip becomes clogged in bad weather. Better results have been obtained, however, in England, where the automatic stop and cab signaling have developed side by side.

Two different forms of cab signaling have been devised, the audible and the visible; and in some cases both are used for additional safety. In the Morris and Crabtree system, as the train passes a danger signal, a track instrument communicates the fact through a current to the wheel, which sounds a bell in the cab. Each time, after passing a signal, the engineer must reach up and adjust the machinery.

The method invented by E. A. Bowden is, if anything, more unhandy. A steam-valve, operating on the principle of a safety-valve, is placed in the cab. The steam is constantly trying to open it, but cannot, on account of a lever which is held in place by a wooden rod reaching down close to the track.

When the engineer passes a danger-signal, a trip placed beside the track strikes the wooden rod, breaking it, and allowing the steam to escape from the valve. After each whistle, a new rod must be fastened in by the engineer.

The most successful of the cab signals has been installed by the Great Western Railway in England. As a train passes

into a block, if the track is clear, a bell rings in the cab; if there is danger ahead a whistle blows, the whistle taking the place of the distant signal. Simultaneously with the ringing of the bell a small semaphore-arm in the cab goes to clear; when the whistle blows, it moves to danger.

The signals are picked up from a ramp on the track actuated by the same current which moves the semaphore signals. A clear signal is given if the train connects with one portion of the ramp, and danger is shown if it strikes another.

In the engine there is a valve kept closed by an electromagnet on a local circuit normally closed. The circuit passes through the lower portion of the locomotive, where there is a switch held in position by a lever which reaches down low enough to strike the ramp as it passes. As it strikes it lifts, breaking the circuit; and, if there is danger, permitting the whistle to blow, and sending the miniature semaphore to horizontal.

If the ramp indicates that the track is clear, another current is sent through the circuit, ringing the bell and moving the miniature semaphore to clear, the whistle being kept from blowing at the same time by one of the electromagnets which holds the valve down when the current is passing. The ramp and the trip which is connected with the automatic stop are kept free from ice in winter by artificial heating.

Worked Without a Hitch.

The problem of keeping the automatic stop free from ice, its greatest disadvantage, has been successfully solved by the use of steam-heat. This was found necessary in the use of the ramp, and the two have been economically worked together. During the great blizzard in the spring of 1908, when England was snowbound and the semaphore-poles were frozen solid, the ramp and the automatic stop, where they were in use, worked without a hitch. The steam-heat kept them free of snow and ice.

Both cab signaling and the automatic stop have proved so reliable on the Great Western Railway that the Board of Trade, the most conservative railroad body in the world, has given permission to dismantle the semaphores over a distance of several miles.

Coincident with the development of signaling, there has been steady progress in the hardly less important matter of switching.

The Magic Interlocking.

The concentration of switch levers in one cabin was found convenient as early as 1846. It was immediately obvious that it was almost impossible not to make a mistake now and then, and throw the wrong switch; but each mistake meant a wreck, or an engine in the ditch.

There was no help for it, however, until Saxby and Farmer invented the interlocking method, which is in use in all its essentials to-day. By this device each lever is connected to a slot occupied by small blocks, or "dogs" with pointed noses, capable of slipping into grooves cut into a rod—the tappet bar—running vertically in the machine.

When a set of switches are to be thrown, the first movement of the lever is to lift the rod, which catches the noses of all the "dogs" representing switches involved in the movement. By the mechanical arrangement of the "dogs," one that would cause an open switch or otherwise break the track cannot be slipped into a groove, but will rest with its nose against the grooveless portion of the tappet bar.

If the leverman by mistake grasps the wrong handle, he finds it does not work; thus all danger is averted. If any of the switches necessary to form a certain clear track are in use, that fact also shows itself by the lever refusing to work.

While the making of a switch is in progress, all the other switches are immovable; but the moment it is made and locked, those not conflicting are released, and can be used for other purposes.

On the earlier machines, those which are worked by "Johnny Armstrong" power, the pulling of the lever turns a pipe which parallels the track to the point of the switch. Two levers are necessary —one to unlock the switch, which is normally held rigid by a plunger, and the other to move the switch itself.

The English Board of Trade has limited the distance a switch can be located

from a manual plant to 540 feet, but even at that distance it takes beef to bring over the levers.

Motive power for switching purposes was introduced in 1860. The first was hydraulic pressure, a piston acting on a combination of salt and water, a leaky machine which did not always do its duty. There were other faults to the interlocking machines at that time.

There was no way of preventing a switch from being thrown under a train and making it do the splits. This was effectively stopped by the detector-bar, which was invented in 1870.

The detector-bar is a long strip of iron paralleling the rail at a switch, and connected with the switching apparatus so that it rises an inch above the rail during the process of throwing the switch. While a train is passing it is impossible to raise the detector-bar and throw the switch.

It was not until 1874, twenty years after the discovery of interlocking, that it was introduced into America. The machinery was made in England, and installed in this country by English mechanics who were brought over for the purpose. It was set up on the Pennsylvania Railroad at East Newark, and its advantages were so obvious that its use spread rapidly, especially at grade-crossings and terminals.

The Electropneumatic.

Hydraulic pressure as a motive-power was superseded by the invention of the low-pressure pneumatic machines in 1876, the first of which was placed in operation at the north end of the "Y" entering the tracks to the Centennial Exposition.

Four years later the high-pressure electropneumatic machine took its place, and it is used successfully in many large terminals to-day. Electricity is used to operate the valves, and compressed air does the work which used to fall to the leverman in the tower. The machinery is different, but the method is the same, the air first unlocking the switch, then throwing and locking it again.

The introduction of the pneumatic machine greatly facilitated the handling of traffic at terminals, as it can operate over any distance, and there is nothing to wear out. The use of electricity to the exclusion of the pneumatic system, as invented by Taylor in 1891, has created a rivalry between the manufacturers of the two kinds of plants, and the result has been increased efficiency on the part of both.

The electropneumatic is used in the largest single switching tower in the world, in the yards of the Glasgow Central depot, where there are 374 levers; but the new tower in the Grand Central Station, New York, which will have 700 levers, will be operated by the all-electric.

Wonderful Combinations.

In the interlocking plant there is a close relation between switching and signaling, and it is not possible to complete the switch until the signal-lever has been pulled.

If a towerman had to remember, each time he threw a switch, all the other routes it conflicted with, he could not carry the knowledge in his head; but the interlocking plant has a perfect memory. If one of the routes, for instance, passes from one track to another through double slips until it has crossed ten tracks, the interlocking plant will have a signal showing on each of the tracks crossed as soon as there is danger.

It has all been figured out in advance, and the necessary signal-wires have been connected, so that the moment a certain route is opened, every signal on every track affected flies to danger.

The detector-bar is no longer used in modern plants, a track circuit serving the same purpose and occupying no room. As soon as a train enters a switch, it makes a connection in the relay, which locks the lever in the interlocking plant, making it impossible to throw the switch.

The Uses of the "Make and Break."

In the interlocking plant, worked by electricity, as in the automatic signal, it is the making and breaking of circuits by the lifting and falling of armature which does the work. Instead of a lever, there is a handle which pulls out, interlocking the several levers which might conflict, and preventing complications.

During this part of the motion there is no change in the electrical connection or

in the switch. With the second part of the pull on the handle, the brushes which have been connected with contact-slips on one end of a controller pass to the contact-slips on the other end, breaking the circuit and causing a new current, which throws the switch.

When the work is done, if the switch works right, two parts of the machine make a true connection, and it is then possible to give the handle a third pull, which releases the other switches and locks the switch just made.

It takes a long time in the telling, but it happens in a fraction of a second. If the switch is pulled through the first movement, but will go no farther, there is something wrong with it, and a repairman is hurried out to examine. If the switch is occupied, it is altogether locked, and it is impossible to pull the handle through even the first movement.

Nothing has yet been invented to make it possible to throw a whole set of switches with one lever, but lever-men are so adept that they can throw half a dozen switches with a motion that is practically continuous. The most that can be done with one lever is to move both ends of a double-slip switch with movable points.

The whole problem of a modern switching plant must be solved in advance by the engineer who lays out the plans on paper. There is in it a very complicated problem, and the combinations are gone over by half a dozen experts before work is commenced. There are sometimes hundreds of different routes within a plant, and there must be a complete set of wires for each, so that all conflicting switches will be locked, and the signals on all conflicting tracks show at danger when any one route is open.

The engineers have reduced the towerman's duties steadily in this direction. They are now so carefully mapped out that a greenhorn could go into a tower and operate the plant. He would be slow, but he could not make a mistake.

If he pulled the wrong lever, he would find it locked. If he tried to give a wrong signal, it would not work. If he attempted to throw a switch under a train, it would be impossible.

At his back there would be a chart telling what levers to pull to open a certain route. In a frame in front of him he would see an illuminated map of the track, showing the position of each of the moving trains.

In the main tower in the Grand Central Station in New York, a buzzer rings whenever a train enters the terminal at Fifty-Sixth Street. After that, its movements are shown on the illuminated map.

The short-circuiting of the automatic signals by the train as it enters each block is represented in miniature on the map by the extinguishing of the tiny electric bulb behind the glass. As it passes to the next block it, in turn, becomes dark, and the block out of which it has passed shows a light again.

As it is impossible to see the trains themselves more than half the time, the electric map is invaluable. It keeps the towerman accurately informed all the time, and saves him from attempting to open a route before a train has altogether cleared a conflicting switch. As the trains pass in and out of the station, their shadows appear to be crossing the map.

Levermen in practise never refer to the chart. It becomes second nature for them to throw the right switches for any given combination, but they constantly watch the illuminated map, as if they were looking out of the window at the actual trains.

When the terminal at the Grand Central Station is completed, and the towers are combined in one, the movements of all the trains within the terminal will show on one large illuminated map. The tower itself will be remote from the track, and could well be half a mile away. The towermen will be guided solely by the indications on the map.

A frown is poor fuel on a long run, a grouch is a steep grade to pull up, and a hot temper never made water boil.

—The Philosophic Fireman.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

Pierre Hears the Indian Girl's Story and Takes Her Away From Harm.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent and cares for them, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. It turns out that this half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up.

CHAPTER III *(Continued)*.

Anne Marie Tells Her Story.

PIERRE sat down at the entrance of the tent and began cutting tobacco for his pipe.

"They call him the Grand Simon," said the girl. "He is also called Kuick-wa-tiao, the Carcajou; and that name makes him furious, because the carcajou is a foul beast. But it is a good name for him.

"He was the husband of my sister, and she is dead. They were married five years ago at Lac St. Jean, at the little church of the Oblate Fathers, you know, in the *Réserve*. She was a fine, strong girl, and had taken many trips to the woods with my father. We warned her against him, for no one likes him; and sometimes he drinks hard.

"But she had the madness of love, and they went away together for the winter's trapping. They traveled back with their pelts and reached Pointe Bleue for the new year, and she was very weary, but made no complaint; and soon they started again, with big loads of provisions, and she was carrying more than she ought.

"He was very rough with her, but we women of the sâvages are used to hardship. Then, after the breaking up of the ice in the spring, they returned with their canoe, and my sister had a little girl in her arms, born in the woods one day when he was away looking after his traps.

"She was all alone and saw no one for two days, until he came back. Well, she had carried the baby and a good load of pelts, and had done her share with the paddle and the pole, and was very weak. We thought she had the disease of the chest. You know, the one that kills so many.

"But she got better. Simon had no house at Pointe Bleue; only a tent, and she lived there during the summer while he went away. He had sold his pelts well, and was gone most of the time, guiding gentlemen at the clubs. But he often got drunk, and sometimes was very bad when he returned.

"That was their life for two years, during which the baby died. It had never been strong, and the doctor at the *Réserve* said that it was because my sister was not well; and the baby had never been well nourished. It made her very unhappy. They trapped in winter, and Simon worked somewhere near Lac St. Jean during the summer; and most of the time he was drinking too much.

Began in the April Railroad Man's Magazine. Single Copies, 10 cents.

"Yes, there is a great fine for selling liquor to the Indians on the reservation; but when a man will drink, and pays anything they ask, he can often get it, for there are always some who will run risks.

"Then my brother Elias was grown up and wanted to go trapping; and my father, who had not gone for several years, thought he would like to try it again, and felt sure he could stand it; but we had little money, and Simon advanced enough for our provisions and traps.

"So we started off, all together, with three canoes, and big loads, and I was glad to be with my sister; and she was happy, too. We traveled more than a month to get to Grand Lac Manouan, and beyond it, where Simon had his camp and his cache.

"So, we all camped near one another; and it was then we found out how bad Simon was to my sister, for she had never told. He was quarrelsome and always made her work harder than she ought, and he would tell us to go away if we did not like it.

"My sister then had another little baby; but she had to work like a strong man, skinning and cutting wood, setting snares for rabbits, and doing the cooking—and Simon was grumbling and quarreling all the time. The little one was ill and cried much, like a white baby, and Simon would swear at it.

"The trapping was not very good. There were no beaver, and the mink were scarce; and there were but few *loup-cerviers* and otters. My father and brother worked hard, all on one side of a river, while Simon had his lines on the other side. They did better than he, and he was angry about that. It was a life of scolding.

"Then came the day when he had brought a good otter-skin, and it was frozen and had to be thawed out a little before scraping and stretching. She was working at it when the baby cried. It must have been in pain, so she went in the tent and looked after it, leaving the skin on the ground; and a gust of wind blew sparks and hot ashes over the pelt and damaged it.

"While she was looking at it he came in. She told him how it happened. He swore at her and the child, and struck her. The baby was in her arms, and the blow made her fall. In some way the little one was hurt, for in a day more it was dead.

"My sister was very strange after that. She never spoke at all, and her head was always bent very low. When we spoke to her she did not answer, and never cried; but looked as if some great sickness had hold of her, and we did not see her eat.

"Then one day, when Simon had been gone two days and she was resting in the tent, my old father went to her with some meat, and found that she did not move—for she was dead.

"When Simon returned next day and was told, he said she had ever been a weak and sickly thing. He helped us bury her, and went back to his trapping.

"Yes, sir. He paid no more heed to her than if she had been a dead dog. But he began to come always to our tent, and it was not more than a couple of weeks before he made love to me."

Pierre said something strong just then, and the girl continued. It seemed to do her good to speak of all these things that had made her heart sore and angry so long. She appreciated the sympathy expressed in the young man's looks.

"Yes, sir, to me, her sister, with her poor body and that of the little one lying frozen a foot or two under the earth near by, where they would not begin to thaw and pass away for many, many months to come.

"I was angry and reproached him; and my brother told him to leave me alone, and they quarreled. Once I threatened him with an ax, and I think I would have killed him if my poor old father had not come between us; but the Carcajou, he went away laughing.

"You know how it is when misfortunes come; they do not cease for a long time. Elias, my brother, went away for two days to attend to a line of traps, and did not return. We went in search of him. There had been no new snow since he left, and we followed him easily and found him dead beside a dead bear.

"The beast had been caught in the trap and had carried it away far, and Elias had followed him. He was a big bear, and the drag-log had not hindered him much. But it was caught under

some fallen logs when my brother reached him, and he had gone very near to shoot. The bear was badly wounded, yet had made a leap that had broken the drag-log away from where it was entangled, and he had caught Elias.

"Yes, sir, it was a terrible time. My father became weaker on account of his age and the misfortune. He could do little at the trapping; and Simon was forever scolding because he had lent money for the outfit, and feared he would not get it back.

"He said he would forgive the debt if I would marry him, but I would not.

"When spring came we all started back, leaving the little dead baby and the brother and sister, all together, under some big hemlocks. When we reached a place two days' journey above the forks in the Manouan River, my father was taken ill. But Kuick-wa-tiao would not wait, and said we were to follow. That sickness lasted long; it was a pain and a swelling of the legs, and we remained all summer."

"How did you live?" asked Pierre.

"I caught fish and rabbits, but we had no more tea. Last month, when my father was well, we got down to the forks, and I said we would go a few days' journey up the Shipshaw.

"Then I thought, after a couple of weeks, that Simon would have gone up the Manouan on his return journey, and that we would go down the river and not meet him. But he guessed what we had done, for he is here."

The girl stopped, exhausted by her long tale, which she had told hurriedly and excitedly. Pierre looked at her pityingly, in thorough understanding of the little drama enacted in the wilderness.

"You poor girl!" he said. "You have been through purgatory, haven't you? Just tell me what you want me to do, and I'll help you to the best of my ability."

Just then he saw the Indian, who came along the portage, staggering under a huge load. He was soon followed by Simon, whose great bulk was bending under the weight of several big *poches*.

After discharging their burdens, they came up to the tent and asked how the old man was. The half-breed peered in and shook his head.

After lighting his pipe, Simon looked at Pierre for a moment, scratching his head uncertainly. Finally he spoke:

"He will not live — he is done for. You cannot do anything to save him."

"I'm afraid not," answered Pierre.

"Well, then, there is no need of your staying longer. We can remain here and take care of him as long as he lives, and, afterward, I will look after the girl."

Pierre did not answer. He was whittling a stick with his knife, and carefully considered his work. Finally he said slowly, "Well!"

"Well, there is nothing to prevent you from going on with your journey, and you can start as soon as you like."

"All right," answered the young man. With this non-committal remark, he resumed the shaving of his bit of spruce, sitting peacefully upon a log. Simon cast evil looks at him, and finally rose and went down to the river, where the Indian had lighted a little fire of chips and birch-bark.

In a few moments the two were busy, boiling their spruce-gum and seal-oil in a little pot, and mending a crack in their canoe at a place that had come in contact with the sharp edge of a boulder. Simon smeared the gum on the crack, smoothing it over with his wetted thumb, and, suspicious of another place, applied his lips to it and sucked hard. But his cheeks remained collapsed — no air was coming through.

"The 'ousch' is tight now," he said.

The Indian grunted assentingly, carefully folding up a bit of cotton cloth from which he had taken the small strip that had been pasted over the crack with the gum.

"Big fellow," he said, "the *monsieur*."

"I'll break his neck," snarled Simon, upon which the Indian shrugged his shoulders.

Pierre went into the tent again for another look at his patient. Anne Marie, weary and ill, had closed her eyes for a moment, and was asleep. Looking at the old man lying there quietly, he observed a strange fixity in his gaze. Bending over him and taking his hand within his own, the young man found that it was very cold. Another glance revealed the truth. Silently, without stirring, gently as in a long, deep slumber, the end had come.

Just then Anne Marie opened her eyes. Something in Pierre's face told her the truth, but she made no outcry. Raising herself to her knees, with great tears coursing down her cheeks, her lips moved without a sound.

She was taking this blow as she had borne others—bravely and quietly, with the capacity for long-suffering of her race, with the courage of a strong nature, and with the real, deep sorrow of a loving woman.

Simon and his companion, coming up, found the two kneeling down in the tent. They took off their caps and knelt also, praying silently, mechanically, impressed for the moment, but, like children, ready to quickly forget.

In a few minutes they arose and began to search under the trees for a spot fairly free from rocks. With sharpened poles they pulled away the mossy carpet and dug up the earth, throwing out the heavy, black mold and the stones with their hands, until finally, sweating with their hard toil, they decided that the grave was deep enough, and returned to the tent for the body.

"That is your coat," said Simon to Pierre.

"Yes," answered Pierre.

"I will take it off," said the half-breed.

"No; leave it alone," ordered Pierre.

Simon shrugged his shoulders, and the three men took up their burden, lifting it carefully, while the girl arose painfully and slowly followed them.

Pierre had carpeted the grave with fir-boughs, and Anne Marie noticed it. The old man was lowered into his last home with the long tump-lines, and Simon was about to begin pushing the earth back into the cavity, when Pierre asked him to wait.

With his knife he ripped off some strips of birch-bark from a tree near by, and covered the grizzled old face, while the girl looked at him gratefully. The earth was then pushed back, and a rough cross made of two sticks was planted at the head.

Pierre replaced the strips of moss with the tiny leaves of wintergreen and wood-sorrel peeping out of the velvety covering, until there was left but a rough spot that would soon again be level with the soil of the forest, and a little perishable cross, to mark the coming and the passing of a poor old savage.

"Maskoush, get the book," ordered Simon.

From the depths of one of the packs Maskoush—or Little Bear, the Indian—brought out a prayer-book and handed it to Simon, who quietly, as if accomplishing some strange rite in which the mumbling of unintelligible sentences was the chief function, read the Latin words. He went on and on, hardly stopping for breath.

He scattered a handful of earth over the grave, in the form of a cross, and Maskoush said "*Requiescat in pace,*" after which the two men lighted their pipes as if nothing unusual had happened.

Pierre considered his three companions. Simon, the half-breed, was evil with the bad traits of two races, while Little Bear had been, in some sort, tamed by the white men who had brought the sheet-iron stoves, the axes of steel, the tea, and the wheat.

Yet, both were brutish—fit descendants of a people that had made its womankind beasts of burden. They carried with them a prayer-book in a dead tongue they did not understand. It was a fetish. It would take generations for them to understand its spirit.

But the girl, Ou-memeou, christened Anne Marie, seemed of a different sort. There was nothing in her of the broken-spirited chewers of men's frozen moccasins. She had done up her hair in two long plaits that hung down her back, and her forehead showed intelligence. Her eyes were beautiful, calm at times, yet capable of showing passion. Her racial characteristics were marked, but the fine oval of her face made her a thing of grace and loveliness. It was difficult to tell how great an influence her religion might have upon her mind, yet Pierre knew that, such as it was, it must be with her a thing of the heart—a sweetening and softening power for good.

She was sitting on a near-by rock. No more tears were coursing down her face. Her thoughts were not very complex, yet she realized that an important part in the drama of her life was ended. But the struggle—the never-ending contest of those who battle with the wild—was still going on—and it seemed like a natural

thing, since her brief life had been spent in a region that insists upon a constant fight for existence, and in which hunger and cold are the paramount enemies.

The men who stood about her were silent — thinking of a contest to come. Hatred and jealousy were in Simon's heart, while contempt and the feeling of enmity developed in men toward ill-favored and dangerous beasts swayed Pierre.

The Indian alone was indifferent. He had gone on this trip with Simon because the latter was a successful trapper, and because he knew he would return with a goodly minor share in the spoils of the voyage. But the love-affairs of others were nothing to him but a hindrance—a thing interfering with the pursuit of pelts.

If needed, he would take his partner's side, of course. He scented trouble, and disliked it. The season was late, and it was high time they were on the trapping-grounds.

He could not understand why Simon and Pierre should want to quarrel about the girl. She was very poor; she had nothing. He was looking forward to marrying another girl, for whom he would have to give guns and blankets, but whose "well-off" father would soon be leaving behind him a small house on the reservation, with a pony and a cow, two tents, and a lot of traps.

A certain respect for the near presence of the dead, for the last words the girl had uttered, kept the men silent. They could still hear her anguished voice. They felt subdued by her presence; for, while she was the cause of contention, she was hurt and sorrowing, and even the gross nature of the Carcajou was for the time being kept in bounds by her grief.

Thus the men held in leash passions that might at any moment break forth in riot. So still did they all keep that when the Indian finally tapped his pipe against the trunk of a birch, and began stolidly to scrape the bowl with his knife, all heads turned toward him expectantly, as if this breaking of the silence portended something. Yet, no one spoke for many minutes, until the half-breed finally began impatiently.

"Let us go back to the tent," he said. "It is time to eat."

He went to the girl, and took her gently by the arm. She shook herself free, and walked alone, slowly, with much pain and difficulty, her nether lip pressed by her white upper teeth. The men followed in silence. The Indian was evidently quite unconcerned, but the others were both under tension and ready for trouble when it should come.

They reached the tent, and Anne Marie sank down upon the fir-boughs with a groan, placing her hand upon her injured side with a movement that had become usual to her. Pierre was concerned to see her looking so distressingly ill.

The silence was again broken by Simon, who was crouching by the fire, holding a spiderful of slices of fat pork over the flames.

"You are a doctor?" he asked Pierre.

"I know something of medicine," answered the latter.

"How long before she will be able to travel?"

"I do not know—perhaps many days," Pierre replied guardedly. He was looking in the tent, and saw that the girl listened eagerly to their conversation.

There was a tense appearance in her face—such as he had seen on the countenances of men approaching big game, or going out upon a log jam, or making ready to battle in the ring.

Simon's lips worked as he sought to restrain the anger that was possessing him.

"Many days, *maudit!*" he exclaimed. "Never. You take her for one of your fine ladies, perhaps. She is Anne Marie, a savage like ourselves, isn't she, Maskoush?" and he turned for confirmation to the Indian standing beside him. "She will be all right in a day or two. She can travel. I will not make her carry. She need not touch a paddle. Do you think I can waste my time here? I must go north, and she goes with me!"

By this time the fat pork was burning in the spider, but the half-breed did not notice it.

"I suppose that is for her to say," answered the young man calmly.

"It is what she is going to do," snarled Simon. "Her father is dead now, and her brother, too, and I am going to look after her."

Pierre noticed that the girl put one finger to her lips and nodded affirmatively. He understood at once that he was to interpose no objection.

"Oh, well—it is nothing to me," he answered.

With that word the dark cloud of anger that had been gathering was dispersed. Simon's countenance assumed a less unpleasant expression, and he went to work to fry more pork, while Maskoush was making the tea.

They all had something to eat, after which Simon went in search of a suitable young spruce. The blows of his ax rang near by, and he soon returned with a straight trunk, which he had already divested of its branches.

This was split into a couple of rough planks, which were trimmed with the ax, after which he set to work to make a paddle to replace one that was split. In the meantime the Indian took off one of his high moccasins and began to cobble it with an awl and a piece of waxed thread.

All was peace for the time being.

A short way above the camp a good-sized brook fell in the river, and Pierre, wandering there, noticed that fish were rising in the pool above. He returned to the camp and put up one of his rods, and picked out some flies, and was about to start, when the girl moaned. He leaned the rod against the tent and entered.

"What is the matter?" he asked. "Is the pain very bad?"

"They must think it is very bad," she answered. "I am not strong enough to travel yet. Are they near?"

"No; they are down by the canoes."

"Well, let them believe I am very ill. It is bad enough, anyway. But I must think—oh, I must think very hard."

"I must think, too," said Pierre.

"Do not stay here with me," said Anne Marie; "the less you are here the better."

Pierre recognized the wisdom of this request. There was no advantage in arousing Simon's ready anger and jealousy any more than could be helped.

"All right. I'll go and catch some fish if I can," he replied. "If you think of any plan, let me know what it is, and I'll do all I can for you."

He nodded to the girl in a friendly way and took his rod. His way led him near the place where the two men were at work. They looked at him somewhat curiously as he passed by them.

"I think there are some trout in that brook," he said. "I'm going to try."

The Indian grunted something to the effect that he believed there were some little ones there, but Simon shrugged his shoulders. Without meaning to, Pierre had given the half-breed a favorable impression. He was a gentleman, and only cared for his sport. He was going to catch trout with that foolish little shiny yellow rod. He had done what he could for the girl and her old father, and now only thought of fish.

He had not come into the woods all alone, like a stupid, venturesome tenderfoot, to get into a fight about a girl.

He probably thought it his duty to stay another day or two until Anne Marie should be better, and then would go on his way as soon as he understood that it would be safer and healthier for him to do so.

Simon, conscious of his own bulging muscles and limited intellect, overrated his ability to deal with the situation. He hardly considered the girl as of any importance in the crossing of his will. Women were the prey of men, like the beavers and the *loup-cerviers,* and belonged to the strongest, who, by right of their thews and sinews, were entitled to the kisses of the first and the pelts of the others.

Accustomed as he was to lifting huge loads, he did not realize the springs of steel that were hidden in the long, lithe arms of Pierre, who, after all, handled an ax in a way to make a real woodsman laugh.

The young man had reached the pool, and began casting a brown hackle and a Montreal over its riffled water. At the second or third attempt he got a rise, and soon landed a small trout. In a few minutes more he got a second and a third one.

A few more casts were fruitless, and he pulled out some more line to reach an eddy just back of a large rock that rose out of the water at the head of the pool. As the hackle descended gently upon the surface, there was a boiling of the water, a glimpse of a broad back, a reddish and silvery flash, and then the music of the reel.

This was no quarter-pounder such as

he had just landed. In a moment the joy of a big fight was on him! Everything else in the world was forgotten! There was the rapid cutting of the water by the tense line, and the tugs that make the heart beat lest the tackle should prove weak or the fish be poorly hooked!

Down in the deepest part of the pool and up again, along the sides where he sought to entangle the line upon broken, sunken branches, across and back, the game old trout carried on the contest. Then Pierre realized that he had no landing net. There was no sandy place where he might lead the fish into shallow water. He must have the net or lose the big fellow, and shouted lustily.

Simon came running down, and Pierre asked him to go up to his tent and bring the landing net. Simon hastened off and soon returned with it, taking a seat upon the bank and watching the contest.

The big trout was done for. Several times it half turned upon its side, and Pierre then managed to reel him in close to the bank, where, with a triumphant whoop, the half-breed scooped him up in the net neatly and cleverly.

"It is a fine trout!" he said, grinning.

Pierre, much pleased with the world in general, answered pleasantly, and the two returned to the tent as if they had been friends all their lives.

The little spring-scale said four pounds and a half, and Simon turned the fish over to Maskoush, who went down by the river to clean it.

Pierre entered the tent. He had held up the fish in order to show it to the girl, and she smiled.

"That is right—be friends," she said. "He must not suspect."

Pierre's spirits fell. He had really quite forgotten for the time being that there was any trouble in the camp.

"Have you thought of anything?" he whispered. Anne Marie shook her head.

"Not yet," she replied. "It is very hard."

CHAPTER IV.

Shooting Many Rapids.

FOR the next two days they passed the time as best they could, the girl remaining in the tent, Pierre fishing, smoking, cleaning his gun and talking to the Indian or to Simon, who overhauled, mended, patched, cooked, and played cards with a greasy pack, as if time had been of not the slightest consequence.

On the third day, it rained fitfully, and fallen leaves began to fly over the river. There was nothing to do, and their inaction made the men restless. They were all gathered in the large tent, where Anne Marie was lying down, apparently as ill as ever.

"Isn't she ever going to get well?" Simon asked the young man discontentedly, as if resenting the fact that he was unable to cure her more quickly.

"There are broken ribs," answered the latter. "You know as well as I do that broken bones do not mend quickly."

"And are you going to stay here until they are mended?"

"Well," answered Pierre, "I ought to think about making a start pretty soon."

"We are losing time," growled Simon. "The cold weather will soon come. We have a long way to go."

There was an interval of silence and then the half-breed spoke again, in a temper, as if his restrained anger was finding a sudden outlet.

"I shall make a start to-morrow."

"Anne Marie cannot travel yet," replied Pierre.

"She can travel! If it had not been for your putting such foolish ideas into her head she would already have started. I have told you she would do no work. Maskoush and I will do all the carrying, all the cutting wood, all the cooking, all the paddling. I have fourteen hundred pounds of provisions. We have to go three times over every portage, four times over the hard ones—"

"Simon," interrupted the girl, "I shall not start to-morrow; I am not well enough. The day after I will start, if you will promise to take me to Antoine Garaud's camp on the *Rivière à la Loutre*."

Antoine Garaud's wife was related to the girl, and their camp was not over forty miles from Simon's place near Grand Lac Manouan. This plan did not suit Simon very well, but promises were easy to make.

"You can begin to make your packs,

monsieur," said the girl, turning to Pierre. "You have been very kind. I suppose you will leave to-morrow."

"Yes, of course," he replied, unhesitatingly, yet not knowing in the least how the tide was running. "I'll pack up to-morrow after breakfast."

Simon looked much pleased, and after a few minutes went out with the Indian, not heeding the rain, and walked down to where his canoe was turned over on the sand at the landing-place.

"I don't quite understand what you're driving at," said Pierre, as soon as the other two were out of hearing.

The girl looked at him for a few minutes before answering.

"I can take a gun and kill him, but we *sauvages* of the Pointe Bleue are Christians now. If you and I should run away they would pursue us. We can only go down the river, and with you alone to paddle they would catch us at the first portage. You would have to carry all your stuff and they would only take enough for two or three days. Then there would be a fight.

"If you were killed, or hurt, I should have to go with them. You were very strong and brave when you pulled me out of the water, but you ought to have let me go over the falls. If we tried to go, in the night, they would surely hear us. If they did not, they would be after us at daylight.

"If he keeps his promise to take me to Antoine all will be well, but if he does not I have a good knife. Perhaps God might forgive my own blood, having seen how much I have suffered."

"I wish I could help you," exclaimed the young man. "Surely there must be a way."

He was getting more and more excited and continued:

"He's a big chap; but one man with a gun is as good as another, and my gun is a lot better than his."

"There is no bad gun at close range," said the girl quietly.

"No, of course not; but it seems to me that if you had told him you wouldn't go, and if I had told him to go to the deuce, he might have made up his mind to keep quiet. As to a fight, I don't think I'm afraid of him, big as he is."

"You are not afraid?" asked the girl, with a strange light in her eyes. "He is so big and strong!"

"I don't think I am, Anne Marie," he answered simply.

She rose to her feet quickly, not minding the pain that stabbed her chest.

"Go down to the landing quietly, and smoke your pipe, and talk to them. I will come soon. Perhaps there will be a fight."

He went down to the strand where Simon and Maskoush were investigating a leaky flour-bag and carefully sewing it up, having made a shelter by tilting up one side of the overturned canoe and sticking a paddle under it, so that the precious flour should not get wet.

He leaned against a tree, cutting tobacco, and began idly to ask questions about the value of mink and marten pelts, an absorbing topic which immediately brought about much discussion.

In the meanwhile, Anne Marie had quickly raised the wall at the back of her tent, and not without hurting her side a good deal, managed to get at one of the pegs and pull it out.

Then she crawled out and quickly made her way to Simon's tent, having seen that its entrance was concealed by trees and rocks from the place where he now was on the shore.

There were two guns in the tent, a double-barreled muzzle-loader and an old single-barreled Hudson Bay Company .28-gage.

She took out the ramrod of the double gun—one end had a double screw for pulling out wadding—and in a few minutes she had drawn out the charges from both guns. She left the caps in position.

In case of a fight a good deal was gained. She returned stealthily to her tent, after replacing the ramrod and carefully putting the guns back where she had found them. She then knelt down and prayed, kissing a little brass medal that hung from her neck.

When she rose she hesitated for a moment, putting her hand this time not upon the wounded side, but upon the place where her heart was throbbing. Then she slowly made her way to where the three men were talking and working.

"Ah, you can walk now!" exclaimed Simon. "That is right. In a few days you will be as well as ever."

"Yes," answered Anne Marie quietly. "I can walk, but it still hurts much."

"Never mind," replied the half-breed cheerfully; "by to-morrow you will be better still, and we will make an early start."

"An early start, yes," she assented, "but before I go there is something to be done over at the grave. I want you to come there, and you, Maskoush, and you, *monsieur,* if you will be so kind."

Pierre came toward her with well-simulated indifference, but wondering what her plan was. Simon rose from his seat under the canoe quickly, and was followed in a more leisurely manner by the Indian.

"What is the matter?" asked the half-breed curiously, and casting suspicious looks upon the girl.

"Come with me," was all she answered as she started toward the little moss-covered mound, only a few yards distant from the tents.

"She wants us all to pray," said Simon to the Indian; "it is but right."

When they reached the grave the girl stopped and leaned against the trunk of the big birch that had begun to scatter its leaves upon the remains of her old father. There was an expression of pain and sadness on her face, and with the back of her hand she wiped a tear from her bronzed cheek.

"I am to say good-by to the last of my own people," she began. "I have no one left but the wife of my father's older brother, the one who was caught in his nets on Lac St. Jean the day of the great storm two years ago. There is Antoine's wife also, only a cousin of my mother. Now I am willing to go with you, Simon, because you promise to take me to Antoine. He will be glad of my help around his camp. You have promised."

"Yes, of course, certainly I have promised," he answered, scratching his head, and avoiding the keen glance the girl was directing toward him.

"You have promised," continued the girl. "But promises are forgotten. I am afraid of you, Simon. You have broken promises to others. But I will go.

"You say that you are the proper person to take care of me now that my father is dead. My sister's husband should certainly have been the one to protect me. I will go, Simon, but I think the poor old dead man there, at our feet, would not have liked to see me go with you. But I am willing, for there is nothing else to do.

"Now you, Maskoush, and you, *monsieur,* have heard the promise, but it is not enough to keep the dead man's spirit at rest. You will put your hand, Simon, here over the grave, and upon the dead man you will swear to do me no harm and to take me to Antoine Garaud, on the *Rivière à la Loutre,* and to leave me there."

There was an impressive silence after the girl had spoken. A dark-red flush broke out upon the half-breed's cheeks. His left fist was clenching and opening, his right was edging around to his back, where the sheath-knife hung from the folded sash around his waist.

In another moment he had broken out in a rage.

"What is that?" he shouted. "I am a liar! am I? A man whose promises are no good! I am to swear, eh? What are you trying to do?

"I suppose you brought the *monsieur* to hear this, to make him laugh at me! I have promised, that is enough. I will take you, and if you refuse to come I will make you!

"I will tie you, and put you in the canoe like a *poche,* and the *monsieur,* if he does not like it, I will slap his face, *maudit!* Yes, I will, and send him crying to his mother. Who do you take me for to laugh at me! at me!—yes!—me! Simon Carcajou!"

The man's voice shook with rage, yet a vestige of respect for the dead man buried at his feet kept him slightly under control. He was a handsome, big brute in his fury, and, angered as Pierre felt at the insult, he kept quiet, observing him with a certain strange interest, such as he had experienced in the presence of maddened animals.

A raging bull, a moose stag, or a bear crazed by the torture of a steel trap, is no more faithful picture of fierce anger than was that shown by the distorted features of the half-breed.

"So you dare not swear?" asked the girl slowly.

"I dare everything now!" he retorted furiously. "I shall take you with me!

We are far from where men live, no one shall stop me! And as for you, *monsieur,* I give you half an hour to pack up your things and go!"

"This thing has gone on far enough," replied Pierre. "You have heard what the girl said. She will have her own will. If you refuse to swear, she goes with me."

"With you, *maudit!*" he shrieked. "You have been telling her fine tales, I swear! You want her for yourself, do you? She is no woman for a *monsieur;* she is one of us and stays with us, and I'll not allow you to make a plaything of her and to taunt me here, in the forest, where I am a man and you a fool! You are a fine *monsieur,* you think, and have only to look at our women to seduce them."

"You're a scoundrel!" shouted Pierre.

Like a flash, Simon's hand went back to his hip for his sheath-knife, but with lightning speed the young man advanced and his long sinewy arm shot out.

The fist crashed mightily against the half-breed's jaw. The man took a step backward, dazed, for he knew nothing of this sort of fighting, and his hands slowly dropped.

Another thunderbolt seemed to strike him as Pierre swung fiercely under his left ear, and the big fellow's knees gave way beneath his weight.

Limp, collapsed, he sank down, an inert mass, felled like a bullock, the blood all gone from his face, a pitiful hulk of broken humanity. And again Pierre, his anger all gone, looked down upon him curiously, as one looks upon the charging moose that has been stopped by a bullet.

It had all happened so quickly that the other two had not moved, but suddenly Anne Marie's hand shot out behind the Indian, and when she pulled it back she had his knife.

"Take care, Maskoush," she cried, and the man knew that though she was wounded she was a wounded panther, lithe, quick, strong—a fierce thing in a fight.

"It is nothing to me," he said. "It is not my quarrel. I want to take no woman to the winter camp. The *monsieur* he is a magician, an *anamakqui,* his fist is like the horn of *mooswa,* the moose.

"Simon thought to find *wapoose,* the rabbit, and he has met *maheigan,* the wolf. Now do him no further harm and I will not move. He will be well soon. You can give me the knife. It is not for you, or for the man with the strong arm. I will harm neither of you, you have my word."

"Not yet; you shall have it when the time comes. We need help now. You, *monsieur,* watch Simon. Do not let him get up. Come with me, Maskoush."

The girl went to the tent with the Indian, and came out with Pierre's rifle and an old tump-line that had belonged to her father. They returned to the grave, near which Simon had been lying. He was now sitting up, still dazed, and glaring stupidly at Pierre.

"Tie him," she said to the young man. "His arms and his feet, so that he may not move. Take this tump-line; it is long enough. Simon, if you move I have the *monsieur's* gun. It shoots many times, quick, and will be for you also, Maskoush, if you do not take care."

The Indian shrugged his shoulders indifferently, and Simon made an effort to get up, but desisted as the rifle went up to the girl's shoulder.

Pierre brought the half-breed's elbows as far back as he could and lashed them securely. The long end of the tump-line was then carried down to the feet, which were well bound by several twists and some half-hitches.

"We will leave you here and take Maskoush with us to help over the portage," said Anne Marie. "Then we will send him back. If you follow us down the river you will find us watching, and the rifle carries far.

"I could kill you now for the things you have done, but I will not. But if you come after us I will say you seek to injure us, and it is war, and the *monsieur* shoots to kill. You have heard."

The half-breed cursed her, but she paid no attention and spoke again:

"Maskoush has to help us, because I will not leave him with you until we are on our way. I will not smash your guns, because you will need them north in the winter's trapping. I will fix your canoe so that you may not use it to-day. *Monsieur,* take the gun and watch them both."

She handed the gun to the young man and went down to where the two canoes had been placed. In a short time she had removed several of the cedar ribs from the larger one, and then she stabbed the birch-bark deeply in a number of places.

It would take some time to repair all this damage, while it would leave the boat as good as ever when mended. The loosened ribs, which she threw in the fire, would take some time to replace.

She came back, panting. Bending down over the canoe had given her pain, but she paid little heed to it.

"Now give me the gun, *monsieur,* and please pack up everything. My big tent you cannot take, nor the big traps. Pack up all the moose meat, and your packs, and all that is yours."

Pierre went to work with a will while the girl rested, sitting on a log with the gun in her hands, watching the Indian and the half-breed. The latter had a full use of his tongue by this time, and cursed his companion.

"Thou will let them go, *maudit!* I'll break thy neck when I get loose. I'm like a fish in a net now, but if I were free like thee, I would leap upon the she-devil and have my knife in her heart, gun or no gun. But she shall pay for it; aye, even if I only catch her after she has got back to Pointe Bleue and made them all laugh at how I was tied up like a swine for killing. Oh, thou shalt pay dear for this."

"I'll take no chances," answered the Indian sulkily. "She has the gun and my knife, and the *monsieur* has picked up thine. I am thy companion for a winter's trapping and for naught else. After they are gone I am with thee, and will do whatever pleases thee.

"Nearly all the traps are thine, and thou hast paid for most of the food. But now I will do whatever they tell me, for they are the strongest. The youth has the strength of a bear, though he is built like a deer."

These words caused the girl to turn her head a little, and she looked curiously upon the young man, as if she had seen him for the first time. His shoulders were broad enough and he was more than middling tall. There was a certain grace about his movements, and the long limbs moved beneath the narrow hips with a litheness which the men of her ken never showed, accustomed as they were from boyhood to the packing of crushing weights.

It took but a short time to make up all the bundles, and Pierre soon called out that he was ready.

"I can take but a small load," said the girl.

"Take the rifle, that will be more than enough," replied Pierre.

Anne Marie turned to Simon.

"We will see thee again soon," she said.

He did not answer and Pierre took up the canoe.

"Maskoush," ordered the girl, "take a load and walk before me."

The Indian obeyed without a word, and the three soon disappeared along the path over the portage.

As soon as they reached the end they returned for another load, but before departing for the last trip the girl spoke to the half-breed.

"Simon, I could have destroyed the canoe and smashed the guns. But perhaps I may find I was wise to leave thee the means to go quietly up North. I shall watch for thee keenly, and if thou triest to pursue us we will defend our lives. Adieu."

So once more they returned along the carry. Paddy abandoned the long watch he had undertaken by Simon, and ceased the growling he had kept up every time Simon made the slightest motion. He ecstatically sallied forth along the portage in one of his vain hunts for rabbits and squirrels, while the three sturdily marched in silence.

Upon reaching the end, Pierre put the canoe in the water and began to load it, while the girl continued to watch the Indian.

As soon as everything was ready, Pierre held the boat while the girl stepped in.

"The knives," said Maskoush.

"I will throw them," answered the girl.

Pierre pushed off, and when they were a few yards away Anne Marie flung the knives to the Indian who picked them up and, rather to Pierre's surprise, called out, "*Bon voyage!*"

"Wait!" called the young man. Searching through his pockets hastily he found his pipe—a fine brier—and threw it to Maskoush.

"You should have something for carrying," he said.

The Indian caught it deftly and smiled. "*Bon voyage!*" he sang out again.

"Have we everything, Anne Marie?" asked Pierre.

"Everything," she answered, and great tears came in her eyes.

Pierre was surprised, but decided that she was thinking of the brother, sister, and father, whose bodies were scattered under the black soil of the great forest along the way from Grand Lac Manouan.

They had expected to see the Indian running back swiftly to free his companion, but he stood looking at them until they disappeared in a bend of the river, and then returned leisurely along the path.

"He's a rather decent chap, isn't he?" remarked the young man.

"Maskoush is a good man. Last year he was fined for hunting in the park, and he had to sell everything to pay the fine. Simon wanted a companion and has advanced some of the money. But if Simon has any whisky he will make him do anything, I fear."

The girl had quickly dried her tears. The way down-stream was easy, with a fair current, and the canoe traveled swiftly. Anne Marie had taken a paddle, and was working away quietly, but suddenly she turned around, looking very pale.

"I cannot; it hurts too much."

"Put down that paddle," he answered quickly. "I should not have allowed you to try it. Turn around and keep a sharp lookout behind us."

"There is no danger to-day," she replied.

But while he steadied the canoe for a moment, she turned around, facing him, and sat down apparently exhausted, one of her hands resting upon the dog sitting contentedly by her.

"Will they try to catch us?" asked Pierre.

"I don't know," she replied. "It may depend on the drink. I should have hunted through their packs and broken the bottles. But, then, that would have made them furious. He knows we must travel very slowly, but perhaps he thinks I was not really hurt much, and can help.

"I fear he will try. He is revengeful, and no one ever beat him before. He has always beaten all men at the wrestling. That was a terrible blow you gave him. I did not think that a blow from a fist could make a great strong man tumble down like an ox."

Pierre put his paddle over his knees for a moment to light his spare pipe, and looked at the raw knuckles of his right hand.

"It was a good punch," he admitted. "But the question is, what are we going to do? It is going to be a job traveling with the idea that at every bend in the river he may overtake us and begin shooting. What sort of a gun has he, by the way?"

"A shotgun," she replied. "Shoots big round balls for big game."

"And Maskoush?"

"A single-barrel—old Hudson Bay—little ball."

"Neither of them much good beyond a hundred yards," he commented, feeling somewhat relieved, yet remembering that once in a while one hears of wonderful shots made with a big round ball in a smooth bore.

It was yet early in the afternoon, and a gentle breeze was rippling the water and stirring the leaves of the white-trunked poplars.

Pierre paddled on steadily and strongly, and seemed to be traveling fast, yet he knew that his speed was as nothing compared to what the other two could accomplish if they cached all their stuff and came after them as fast as they could after repairing their canoe.

There was something strange about this trip. The unconventional companionship disturbed the young man's mind to some extent. The idea had not suggested itself to him before.

Yet when he looked at the dusky creature before him, clad in the rags that were left her after a hard year in the North, and considered that she was but a poor, suffering, wild thing upon which he had taken pity, he smiled to think

that some Mrs. Grundy, back in the civilization from which he was so distant, might have something to say.

There was also a queer sensation of helplessness, and he realized that in this expedition she was the leader. In her keen, strong, young face he read wonderful determination, and, after all, her life had been of the woods, her mind understood the workings of Indian brains, her experience was such that under these circumstances he was a willing but inexperienced woodsman, and hers was the craft needed for a voyage that might be easy, or might prove full of difficulties.

So he again spoke to her:

"Anne Marie, we must decide upon what we are going to do. Those two can catch us if they try. I don't know what is best. I am not of the woods. You must decide, and I will do whatever you say. You must think, and tell me your plan. I leave it all to you."

She looked at him, somewhat surprised. An instinctive modesty, a feeling that her judgment was nothing as compared to that of an educated *monsieur,* prompted her answer.

"You are a *monsieur,* very strong, and I only a girl and weak. It is not for me to say."

"But you know a lot more about this sort of thing than I do," he retorted somewhat impatiently. "After all, this is all your affair, you know, and I'm giving up my trip to help you out. Just forget all about my being a *monsieur,* and get it into your head that I expect you to boss the whole thing. Now, tell me all about it, like a good girl."

He lifted his paddle from the water and raised the blade high up, putting his lips to the handle and allowing the water to run down into his mouth. The girl thought for a moment before speaking.

"We can only make the next portage before dark," she said. "Simon cannot follow very close. It would take a good many hours to mend the canoe, and then he knows we are watching for him. It is pretty late in the year for his long journey. Perhaps he will not follow."

"But the man loved you," he objected. "And then he may want revenge. He may have that whisky, you know."

"Oh, he is mad, *monsieur.* He is furious by this time. He wants me, and he wants revenge. I should have killed him."

"Well, that may happen to him yet," said Pierre. "But I think it would have been rather high-handed. So you think he is pretty sure to follow us?"

"He will follow, I fear."

"All right, that's settled. Now tell us what to do," he answered lightly, as a youth whose sore knuckles spoke of an easy victory already achieved, and who, in consequence, was not disposed to attach very great importance to his foe.

"We must get beyond the portage and travel as far as we can, even after dark, and then we must hide ourselves somewhere and watch the river. They will not travel at night, as they will be afraid to pass us.

"We must go on only in broad daylight after that, and keep on watching the river. Then if we should see them we must go ashore at once, and if they come on you must fire. If they are in deep water hit the canoe low down; that will stop them. But if they are in shallow water you must shoot at Simon."

It did not seem like much of a plan, but Pierre could think of nothing better, and decided that, after all, circumstances would have to guide them. He bent to his task again, and, for a *monsieur,* certainly sent the canoe at a lively gait, yet, from further experiences, he dimly suspected that even Anne Marie, had she been in her usual health, could have paddled it faster and more untiringly than himself. He remembered how he had seen mere children of the North making canoes fly.

The girl, with the rifle near her right hand, and still resting the left on Paddy's back, kept watch over the river.

Her gaze, hawklike, remained steadily upon the river behind them, and even when Pierre addressed her she never for a moment relaxed her watchfulness.

He began to question her about herself, and she replied in few words. Yes, she knew how to read and write—the Oblate Fathers had taught her. She could also speak a little English, but it was a very difficult tongue to her.

She had taken her first communion six years ago—she was eighteen now. Her father and all her people were Mon-

tagnais, except her father's sister's husband, who was a Téte de Boule. Maskoush was an Algonquin; his father and mother had come from somewhere down the Saint Laurent.

Now the river was narrowing, passing between cliffs topped with a disheveled mass of rank and tangled vegetation. The deepening water became very dark and silently swift. A fish-eagle hovered overhead, with great wings nearly motionless. At intervals he uttered a rasping cry, and then the deep silence reigned again, but was soon dispelled by the booming of tumbling waters.

"Look out for the rapids," cried Anne Marie. "The *saut* is to the right."

"I had to portage here. And right there, near the little sand-spit, is where I camped for the night," said Pierre.

"Yes, but you can shoot the rapids easily. It is all strong, smooth water on that side. Stay very near the shore."

The river was narrowing still more, and they swiftly reached a place where the white water was beginning to boil. A powerful stroke of the paddle sent the canoe well inshore.

The current seized it and bore it fast toward an upstanding boulder, but another stroke guided it just to one side and the great rock shot by them like a living, flying thing while they went on down—down—with the speed that intoxicates.

In another moment, the frail craft was bobbing gently up and down in the eddy at the foot of the rapids. They rested a moment while Pierre lit his pipe again, and started once more, the paddle ever dipping, dipping until the motion became a monotonous grind, and there was no sound but the drip, drip of the paddle, and no motion but the rhythmical, short, straight-elbowed sweep of the arms.

Once in a while the paddle was changed to the other side, and all along Pierre was conscious of the unending stare, just to one side of his head, of the Indian girl's dark eyes. Paddy was lying still, unconcerned, only wagging his tail whenever his master looked at him or spoke.

The young man was in good training, yet his arms ached with the toil and his speed had diminished a little.

The sun was touching the jagged edge of the distant woods in the west when Anne Marie spoke.

"The portage is ten minutes," she said, without even turning her head. "It is a short one, and the landing is on the right."

In a few moments the roar of the cataract could be heard. The water rushed down on both sides of a little island.

They landed upon a huge flat rock, and Anne Marie, with the gun, sat down, still watching the river, while Pierre came and went with his loads.

Once more they embarked and the journey was resumed until, in half an hour, the girl pointed to a high rocky island that stood like a sentinel in the river.

They got out on a bit of shelving rock, and Pierre carried the canoe out of sight from the river. The packs followed, and by the time this was done the darkness was upon them and they stumbled about in search of a spot level enough to put up the tent.

They found no place where the white silk would be out of sight from the river and decided not to use it. Fir was plentiful, and they soon had a lot of bedding.

"What if they go by us in the dark?" asked Pierre, as he opened one of the packs for food.

"I have said they will not travel in the dark. If they went by us, they might have to go far and waste time. They would make tracks over the portages, and we would know that they are ahead. No, they will not go by in the dark."

"Shall we make a fire?"

"Yes, a small hot fire—there between the two big rocks."

Pierre got some of his half-smoked moose meat and started the kettle for the tea. He first fried some of the meat and then made a couple of big flapjacks, the whole size of the frying-pan. As soon as this was done he threw water upon the fire and they began their meal.

Pierre was ravenous, but the girl ate little. Paddy, as usual, was ready for all he could get.

As soon as they had finished they took their blankets and wrapped themselves up, lying down under the fir-trees.

(To be continued.)

O'HALLORAN OF SECTION 9.

BY J. R. STAFFORD.

Roberman Hired Him To Be a Fool, but Even Fools Have Their Privileges.

JUST as Roberman's section-gang was knocking off for the day, O'Halloran, six feet tall and every inch of him in a hurry, dashed up along the track like a man in search of a doctor. Opposite the hand-car, however, he halted and began abruptly:

"Me fri'nds! I am but thray wakes in Ameriky, aan I kem from thot parrat av the ould sod which prodhuced Willington—the same thot captured Napolyion Bonayparthe at Waterloo. They were both av thim very greaat aan famious gintelmen, as yiz who have taken the throuble to rade hist'ry aare aware, even if Napolyion did have the misfortune not to be born in Oirland. Me fri'nds, be the luk av intilligence I persave in the faces av yiz aal, I mistake not but this is aal common knowledge wid yiz. But it is me failin' whin I am wid wise aan idgicated persons thot I run to ancient hist'ry aan the higher form av learning. Phwat I kem rushin' fure to ask wor a job, me fri'nds."

Now, Roberman's section-gang consisted of five worthless ignoramuses—and Roberman. Of what Roberman consisted, I leave you to judge. His father, who was the president of some railroad or another, had tried to start him first in one department, then in another, and at last had given him up.

Wherefore Roberman, whose head was the shape of a door-knob and only a little larger, had determined to make a great effort for himself. At that time the G. and T. belonged to nobody, being dominated simultaneously by seventeen sets of stock and bond holders.

Each set dreamed of finding a powerful railroad ally somewhere which would force the other sixteen out of business.

Roberman, scion of Roberman the president, was the very man for whom the

EVERY INCH OF HIM IN A HURRY.

G. and T. was looking. He permitted himself to be found. But there his complaisance had ended, because when it was insisted that he accept the post of general manager he replied that he desired to be, like his father, a practical railroad man.

O'HALLORAN WAS DOING ALL THE WORK.

If they would not start him in at the bottom, then he would not start. If he had reached for it then, he might have had the presidency; but he had, after all, only the ambition of a cart-horse—so he asked for section 9.

He had now been foreman a little over two weeks; but, in that two weeks, in the processes of natural selection he had gathered around him the most ignorant white men who ever mauled spikes. He would have been happy but for one thing. There was no one to amuse him.

But now, as he stood listening to O'Halloran, he was overjoyed. The Irishman would help to pass the time away. He hired him on the spot.

"Be me sowl, Misther Roberman, but it's the foine thing yiz have done fure me this day," O'Halloran proclaimed as he boarded the hand-car and began pumping with a jerk that swept the three men on the other bar clear off their feet, "aan savin' thot, too, a foine thing yiz ha' done fure yersilf. Fure be the luk av yiz about the forrid aan the oies—meanin' no disrespect—but yiz will be nadin' a powerful fri'nd yerself wan av these foine days, aan whin yiz do, beloike it will be Timothy O'Halloran thot will rise up aan stand betune yiz aan the boss thot's higher up."

Roberman, having taken on O'Halloran as kings take on jesters, forgot that the fool has his prerogatives. It occurred to him that it would be well to knock the Irishman off the hand-car and run over him. But, being one of those who decide on one thing and then do another, he grinned sheepishly and deferred action until he could take an hour off and think it over.

When they came to the section-house he ordered O'Halloran to stow the tools, and, commanding the crew to follow, he repaired to the bunk-house and laid the case before his advisers.

"Wot's the harm in 'im?" Raddles, who was a genuine hobo, demanded. "He might work, an', if he would, he's big enough to do ever'thing. That's allus been my idee of a good time: to have a feller along that would do the heavy liftin' an' the sweatin' jist as he's a doin'

now." He turned and pointed to where O'Halloran, ignorant of the use of the rails leading to the shed, was simply dragging the hand-car over the ties by main strength.

"That's the system," another of the crew agreed; "look at him. That's the way to pay him off, Roby. Work him to death, an' let yer friends take it easy."

Roberman decided there was wisdom in the advice. Not being gifted with the large patience necessary to follow out the plan, he proceeded to the tool-house for the pleasure of a little momentary vengeance.

Being awkward in attack, he began: "Well, I see you have hauled that car in. Say, you haven't any more brains than to do what you're told. You haven't any more sense than a work-horse, you clumsy bog-trotter!" And he was very angry as he said it.

"Childther," O'Halloran observed good-humoredly, "are niver quite fit fure the jobs av men; but it's no parrt av moine to be kickin', fure I have said I shall be a powerful fri'nd to yiz, on account av yiz havin' givin' me me start in this loife. Whin yiz become a hobo, aan I be siction-boss, yiz will undherstand."

Roberman forced derision from his wrath and succeeded in cackling impudently:

"Your start in this life?"

He imagined this lead would afford an opportunity for wittily overthrowing O'Halloran. "Your start in this life? Humph, you must expect to amount to something, eh? What do you think you'll amount to? How do you imagine you will ever get on top?"

"Be doin' me work," O'Halloran answered simply. "Jist as me faythe r, who wor a schoolmaster av the hedges, used always to say to me. Aan his last word befure I tuk ship a month ago wor, 'Me b'y, in Ameriky all yiz have to do will be all thot's set fure yiz. Aan some day the main boss over thim all will come around aan see it; aan he will take yiz by the coat, Tim, and he will say, "Yiz aare the very mon I have been lukin' fure this long toime. Come wid me to hoigher wages aan continual promotion."'

"Aan thin he would go on, me faythe r would, aan say, 'It will be so, me b'y, fure Ameriky is a great place fure silly fellows to be fillin' hoigh places; aan yiz can make no mistake in goin', fure if yiz be a mon av wit, yiz will rise be your powers; but if yiz be a fool, yiz will still rise, because it is the way av the counthry.' Aan bedad aan I know now the ould man wor right, fure surely yiz aare in authority."

Still Roberman had not enough. He persisted: "You couldn't fill a high place if you had it, you ignorant chump."

"Indade, aan I might fail in the mather av manners. I made the mistake av beginnin' wid the notion av bein' a gintelmon which, in yiz ownsilf, I persave, is distasteful; but, as fure knowledge av hist'ry aan the hoigher branches, I be as full as an egg av meat.

"Me faythe r wor a foine wan in the mathematics, aan he taught me all he knew, not knowin' but thot I would become a greaat surveyor over in this counthry or the sicritiry of the War Departhment, which, as yiz know, rayquires not only surveyin' an' navigation on account av the work wid fortayfications aan navigable strames, but addition an' long division also, to cast up the accounts av the quarthermasthers. Aan as fure the manners, I could hire me a cart-driver or other swearin' blackguard to mistrate me underlings."

After that, Roberman contented himself with the satisfaction of giving the Irishman three men's work and seeing that he did it. And there was no trouble in finding work on section 9. It was the worst on the division. The whole eight miles traversed a badly broken country. Since the G. and T. had been built by a set of promoters, who merely wanted a profit on the construction, the construction was of a wonderfully fearful character.

The ties lay unballasted, and there were curves where there should have been straight stretches. The management, being perfunctory, had attracted to it, in the natural process of organization, the most worthless and incompetent heads of departments you could imagine.

The roadmaster, whose business it was to see that Roberman kept section 9 in order, merely came around once a month, and, after smoking a short pipeful, got on his velocipede, pumped on to the next section, and eventually to undisturbed slumbers in his office at headquarters.

But section 9 began to enjoy a different reputation. No sooner did O'Halloran realize that he was doing all the work than he grew vastly interested in doing the work well. It made no difference to him that Roberman and Raddles and the rest sat in the shade of the nearest tree and played seven-up while he set spikes and drove them home.

He had seen railroads where trackage is a first consideration, and, having observed, he knew what constituted a roadbed. Ballasting by hand-work is a slow process; but O'Halloran, studying each superfluous curve and tossing cobbles while he studied, soon had a bit of foundation in those places where a foundation was most needed.

Immediately after he had made these simple improvements, the roadmaster came along. Never had that official dreamed of so much permanent work on the G. and T. Remembering that Roberman was the son of a great railroader, the roadmaster sent in such a fulsome report on the magnificent showing of section 9 that Roberman was summoned to headquarters and tendered the position of roadmaster.

When it was explained to him that this was in the way of an earned promotion, he ducked his flat-topped head and accepted. No provision was made for the man who had lately occupied that post. He was disposed of, and that was what should have been done with the whole management.

If Roberman had only known to let well enough continue, he might have earned another promotion. But, in the nature of his situation, he could not do that. He actually believed that he had won his new post, and straightway he began to win the next one himself.

His plan of campaign would have been brilliant, too, but for one defect. He contemplated rebuilding the G. and T., but at that very moment the G. and T. could not raise enough money for the rehabilitation of its rolling-stock. However, the president listened to him with attention, canceled an order for the construction of a roundhouse on the site of one burned the month before, and put the funds thereby released at Roberman's disposal.

Roberman made himself the superintendent of construction, and, calling for a work-train, went back with it to section 9.

O'Halloran, greeting him, demanded: "Aan shall I be made boss av this siction now, Misther Roberman, be way av payin' me for the rise yiz got be accidint?"

Roberman, at length freed of the necessity of a fool to amuse, still felt the necessity of a crutch, made O'Halloran his assistant and appointed Raddles to section 9.

Next day the rebuilding of section 9 was begun. Roberman, as chief engineer and chief everything else—like a boy in a man's place—had forty separate and distinct ways of doing everything; but, not having the courage to decide on any one for any length of time, whatever he undertook he did not finish. The fill below the trestle on Plum Creek, just after he had it half finished, was altogether too expensive a piece of work, he decided. Likewise, he quit straightening the Pine Hill curve, leaving it a sharper elbow than ever.

O'Halloran saw the waste of money and opportunity, and he became unmanageable.

Among a great number of bad places in the line, the Marsh Curve was probably the worst of all. The Grapevine Cañon, which sometimes contained a river, flanked the marsh on the west. The marsh—it was nothing but a very low alkali flat—lay a mile wide between the cañon and the Grapevine Bluffs. Because the promoters had seen fit to come out of the bluffs at a point across the cañon half a mile above the site for the trestle, they had strung the road across the marsh in a great curve.

A curve anywhere is hard enough to hold, but on a slippery alkali flat the feat is well-nigh impossible. The slow orders, broken rails, ditchings, and breaks that were always holding up traffic at that point had rendered the Marsh Curve infamous.

When O'Halloran and Roberman came to this place the new roadmaster, laboring under the impression that he was what his position indicated, decided to do something on his own account. Any fool of a freighter even would have known that the way to abolish a curve

was simply to strike straight from the cut in the bluff squarely across the marsh to the trestle.

But Roberman, knowing nothing of ways except those already made, and having great respect for the builders of the road, determined that the Marsh Curve only needed a little more ballast.

be afther fixin' it. Yiz must have the backbone to raypudiate it intoirely."

When his recommendation was laughed at he declared: "Be me sowl, Misther Roberman, if yiz attimpt this, I shall forward me own riccomindations to the manager wid a thrue statement av me worruk aan the fills av section 9. Yiz shall not

"AAN WHIN DID IT COME TO BE PROPER PRACTHISE TO RISK A WRECK TO SAVE TIN YARRDS AV STEEL?"

"Ballast yer granny!" O'Halloran snorted. "It's ballast on the side av the head av the mon thot laid out the line thot's naded."

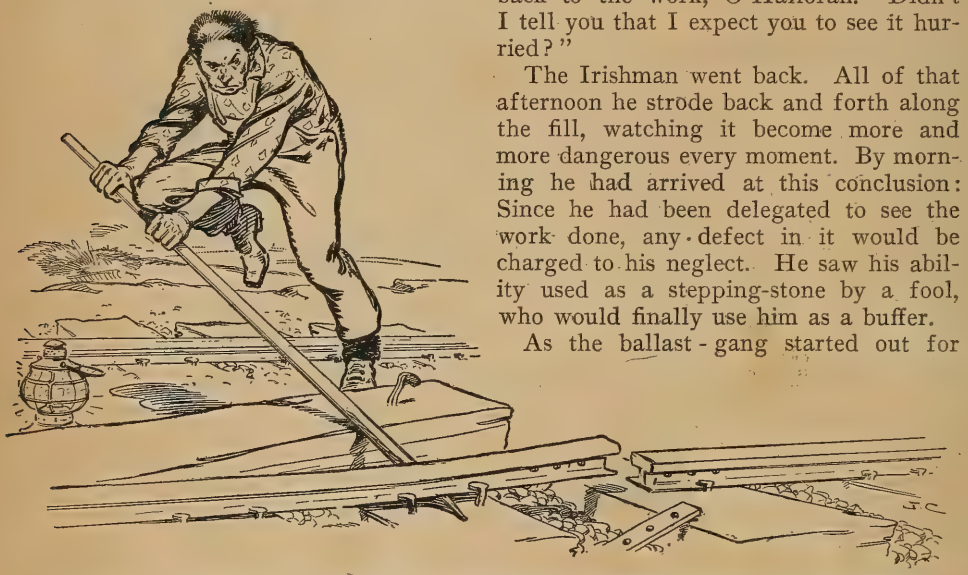
And, thinking of what the mistake would cost him, he expostulated: "Now be plazed to stand be thot notion, or yiz will be afther ruinin' me. Whin yiz be foindin' a misthake the loike av this, don't ruin me aan me records aan me chance be this fool's blunder."

Roberman, of course, sent in his recommendations and, as a matter of course, too, O'Halloran sent in his. But, as O'Halloran never got off the section, the only answer that came back from headquarters was a work-train carrying a ballast-gang. O'Halloran watched the bal-

lasting of the curve as another man might have watched the dissipation of his fortunes. He knew what would become of it, and he knew that in some way Roberman would lay the responsibility on him.

On the second day of the work he went into the box-car office on the temporary siding, where Roberman was rolling cigarettes, and protested:

"Misther Roberman, I wish to praysint this fact for yiz to consider. This ballast thot yiz be so fast a puttin' in is not a goin' in as it should. Yiz will be afther havin' the outside av the thrack the lowest aan this curve. Yiz are afther makin' a bad matther worse. I know it. I have been watchin'."



COMING TO A TEN-FOOT RAIL LENGTH, HE BROKE IT OUT FROM THE GRIP OF THE SPIKES.

"It's the way I designed it," Roberman declared with the *sang-froid* of an ignoramus when he really commits himself. "I have figured out that by having the outside rail lowest, the strain on the inside one will be removed, and there will be no more broken rails."

"Rails!" blazed O'Halloran. "Rails! Aan whin did it come to be proper practhise to risk a wreck to save tin yarrds av steel? Yiz be loony! Be the powers, I tould yiz wance yiz would be a nadin' a sthrong fri'nd some toime! This be the toime!"

But Roberman, having gone past the point where O'Halloran's shafts might strike, only puffed benignantly and calmly said:

"I have wired in to the manager that by six o'clock to-morrow afternoon Marsh Curve will be in A1 condition, and, in spite of the curve, it will be the fastest track on the division. He has wired back that when I confirm my promise he will start out with a fast engine and his car and try it out. You had better go back to the work, O'Halloran. Didn't I tell you that I expect you to see it hurried?"

The Irishman went back. All of that afternoon he strode back and forth along the fill, watching it become more and more dangerous every moment. By morning he had arrived at this conclusion: Since he had been delegated to see the work done, any defect in it would be charged to his neglect. He saw his ability used as a stepping-stone by a fool, who would finally use him as a buffer.

As the ballast-gang started out for work after breakfast, he once more climbed up the step to the door of the car on the temporary siding.

Roberman was sound asleep, and a drowsing youth was sitting at the table whereon the telegraph-key ticked its endless monotony.

"Me b'y!" O'Halloran's eyes were blazing at the thought of his opportunity. "Yiz will sind a telegraft to the manager, advisin' him not to come wid his fast special. The thrack is dangerous. Freights aan locals passin' on slow ordthers in the noight have tamped it on the wrong soide. Say to him O'Halloran bids him come very slow."

The youth grinned at first; but, fearing the look that was in the Irishman's eyes, turned to the key and rattled off a message, which went nowhere because the line was not switched in.

"Aan phwat does the manager say?" O'Halloran demanded at length.

"Says he's much obliged, an' will mind you to the letter."

"Havin' thin discharged me duty to the road," the factotum averred, "I shall resign."

Going over to Roberman's bunk, he roused him with a rough shake and these words: "I am done wid yiz aan yer job, Misther Roberman. But I shall sthay ontil the manager comes, fure he has jist now bid me he will come slow. Aan be the token av thot, I take it he will be afther wishin' to see me whin he comes. I bid yiz a gude-by, sor. I shall go out aan wandther along the right av way ontil he comes along."

He bowed, and went out as majestically as a Wellington.

Roberman, floundering out of his bunk in a rage at being awakened for such an outrageous cause, sank back to hilarity when the wireman told of the message which did not go.

"Let the bog-trotter go, then," he laughed delightedly. "Let him go. And I hope the manager's special runs on his slow order and catches him on the track."

But Roberman's peace of mind was soon shattered. At 10.30 o'clock the western freight, a fast through, came lumbering down through the cut, and, in slowing for the curve, came near to toppling from the fill.

Moreover, when it finally reached the trestle the engineer sent back a big and profane fireman with a sharp and sulfurous message. The tenor of that oral deluge was that Roberman was a train-wrecker, an idiot, a felon, and a marked man.

However, the roadmaster knew his rights, and, knowing them, ordered the fireman to be off. He sent a message to the manager, requesting him to have the division superintendent discharge the crew on that run of the western freight. Now, the G. and T. management had expected some outbreak or other as a result of having hired Roberman, and, being prepared for it, his request was granted instantly.

Even this balm to his feelings could not put him altogether at his ease; for Roberman, after the fashion of his kind, was sure of nothing, if any one—even an enemy—doubted him.

He went out and looked over the fill on Marsh Curve, and marveled how low the outside rail had sunk.

There is no telling what might have happened had he run across O'Halloran then. Instead of meeting the Irishman, he fell in with the old roadmaster, now a gang-boss. The roadmaster that had been bowed to the roadmaster who was, and adhering to his sycophancy, congratulated him on his promotion, and averred that this piece of work should make him a general official.

Roberman did not stop to discuss the matter. Relief from his doubts was all he wanted, and, having secured it, he hurried back to his office in the car.

At two o'clock in the afternoon O'Halloran, who had spent the morning on the trestle, came back to the camp for something to eat. He had expected that the work would be stopped, for he really believed that he had reached the manager with that message. But when he found the ballasting just about completed and the work-train ready to pull out, he forgot his hunger and went again to the office.

"Misther Roberman," he declared, "there be something about this thot I don't loike at all, at all. Why did the manager permit av yiz goin' in this fool scheme?"

The roadmaster wanted no more doubts cast upon him, for they were worrisome. Since he knew a controversy would bring them in untold weight, he evaded the question and lied for an answer. While he was doing this he was also writing a message to the manager. This confirmed his promise that the work would be completed. He wondered if it wouldn't be wise to modify his statement about fast trackage, and then, being undecided, allowed the matter to stand as it was.

Presently the answer came back. The manager was just leaving Falls, two hundred miles to the west; and, as it was now 3.31, he would be along at about 8.30. Roberman was advised that if any freight should be near the curve at that time, it should be set in on the temporary siding used by the ballast-gang.

The balance of that afternoon was so dull on the alkali flat that every one but O'Halloran went to sleep. He would have slept but for one annoying thought: Why had the ballast-gang been allowed

to go on and finish? He went out and sat on the right of way, hoping that an extra of some kind might come along and stop long enough to give him some information. But no extra came.

As night drew near, the office force in the box car roused and began making preparations, at which the Irishman marveled. He slipped around to the side door, and overheard Roberman saying: "They'll be along in forty-five minutes. Joe, you take a lantern and go down the track to the ballast-switch, for there's that way-freight to be backed in on it. It's going to be close; and, if they don't hurry, the old man will hit them about the time he leaves the trestle. He'll be comin' onto Marsh Curve to-night faster than any train that ever hit it before."

O'Halloran wasted no time; but, clambering up the steps out of the dusk, he thrust his head into the door and delivered: "Aah! but yiz lyin' booby, I will show yiz a thrick thot bates a hundthred av thot. I shall go this minute to build a fire beyant the trestle to make them slow down."

There are times when even fools and cowards rise to the occasion. Roberman turned to Joe and dictated this message to the manager:

> The crazy Irishman who protested against my recommendation on this work still objects to the work after you have sanctioned it and after it is completed. He is now threatening to stop your train with a signal-fire on the other side of Grapevine Trestle. Disregard any signals that he may make, for the track will all be clear.

"Yiz be afther murderin' him," O'Halloran shouted fiercely, and he sprang up inside the car. But Joe, obeying the imperious wave of Roberman's hand, snapped the switches together, opened his key, and rattled off the words.

Just as O'Halloran's heavy hand was clutching at his wrist, there roared down from the cut the noise of a freight-train.

"Flag them down!" yelled Roberman. "Flag the devil!"

Joe answered: "They hain't no time now."

"Be the way they are a hittin' av thot curve, there will be no nade av the flag!" O'Halloran boomed down upon the two. "Be loike thot's the noise av it right now!"

There came a crash like the report of a heavy gun.

They ran over to that door of the car which commanded the sweep of the curve. Far down in the deep dusk there twinkled many and strange lights, but the silence of night and the desert was profound. It was as if the heavy freight had been suddenly snatched out of existence.

"It's gone over the fill," Joe choked.

"Yis, it's gan' over the fill, as aany man wid the sinse av a pig wad have known!" O'Halloran reiterated.

Roberman, thinking only of his disappointment, forgot the manager and his special. It was O'Halloran who first thought of that. Turning to Joe, he said: "Tilegraft the manager thot it be toime he listen to O'Halloran! Sthop him!"

This time Joe did not neglect to cut in the switch. But when he called for the last station at which it was now possible to catch the special he found the wire was down.

Roberman lolled down on the table, cursing his luck.

"Luck!" stormed the Irishman. "Be loike it is luck for yiz thot the manager will niver know phwat happint him. But if yiz wor the tinth parrt av a man, yiz would be afther doin' somethin'. The wreck yiz have produched has broken aff the wire. Yiz must stop thim in some other way."

He took the advice to himself, leaped to the ground, caught up a spike-maul and a pinch-bar, and, running off toward the wreck, shouted back to them:

"Come aan! Come aan! I nade the hilp av both av yiz!"

Roberman, with his helplessness upon him, hesitated. After a full ten minutes he jumped up, grabbed a lantern, and, yelling at Joe to follow him, ran down the track. Passing the wreck with no more hesitation than he might have displayed had the train been on the siding, he came at length to the end of Marsh Curve and Grapevine Trestle.

There O'Halloran, gigantic in the night, was wrenching at fish-plates with his bar and striking Titan blows with his maul.

"Come on!" shouted Roberman, "we

must start a signal-fire on the other side!"

"Hould on! Yiz have warned him ag'inst a signal-fire! Hould! The toime be shorrt! We must ditch thim s t h r a i g h t forrurd aan the flat aan pray the saints be wid thim, for nawthing ilse can save!"

But Roberman, in the stampede of his fears, ran on. O'Halloran, realizing that he was alone to do his ten-men task, cracked fish-plates with single sweeps of his maul. Coming to a ten-foot rail length, he broke it out from the grip of the spikes, and, using it for a lever, pried over rail lengths of ties and tracks like a child at play.

"COME WITH ME. I LIKE YOUR STYLE."

Hardly had Roberman's footsteps died away on the trestle than the job was done.

Five rail lengths of track had been swept off the fill and pointed into the flat.

When the manager's special came along it would plunge down the rails where they bent from the low embankment and flounder on into the marsh.

O'Halloran, with his breath coming in gasps and his senses reeling from his terrific exertions, paused thankfully.

That instant a splay of white light shimmered and the roar of a high-speed engine thrummed on the night.

An instant later the headlight of the manager's special shone clear and open at the top of the long grade, illuminating it all the way down to the trestle.

In the beam of light O'Halloran saw Roberman, lantern in hand, half-way across the long bridge. Then he disappeared.

The lantern still burned in the middle of the bridge, but its bearer was gone.

He watched breathlessly, hoping to see Roberman rise from some girder and come running back.

But Roberman had vanished.

The special tore across the tottering trestle at forty miles an hour.

O'Halloran saw the lantern snuffed out. He groaned beside the disconnected curve.

The flying engine from the west took his improvised derail. He saw a portly old gentleman with white whiskers leaning far out of the left-hand window of the cab, and the next moment he saw the same old gentleman shoot out of that window and disappear in the darkness.

Then came a great thump and the hiss of steam as the locomotive plumped over on its side.

O'Halloran set his teeth and strode to the wreck. As he stood listening in the darkness, a match was struck. He saw a very formidable apparition appear just where the old gentleman had disappeared —formidable, because it swore with appalling fluency.

It called mightily for Roberman.

The matter of explaining the wreck and the duty of hustling to the trestle for the maimed body of Roberman, and finding him still hanging by his hands to a tie for fear he would fall if he attempted to change holds, was soon accomplished.

Then the president, who was a former mule-driver, took O'Halloran by the shoulder and, after the manner of the parental prophecy, said:

"Young man, you're the very feller I've been a lookin' for. You come with me. I like your style. For, by the powers of mud, any man that can save a train by ditchin' it, has got the business down to a mighty fine point."

A Ride On a Runaway.

BY J. S. COYLE.

THE TRUE STORY SERIES. Self-preservation is the first law of nature, but man shows his superiority over the rest of creation by proving that it is not the final law. If Fireman Cole had not shown that courage and ingenuity came before the blind instinct to jump, it is probable that this story would never have been told, though the ending would have been much more exciting. Panic is one of the few things that the mind cannot imagine without realizing. Consequently, it is almost impossible to guard against it. Therefore, the man who is cool and resourceful in danger is a real man, whose orderly mind can place the proper value on risks and chances.

A Wild Dash Over the Country In a Light Engine, With the Throttle Jammed and the Steam at Top Pressure.

TRUE STORY, NUMBER FORTY-FOUR.

TO ride on a runaway engine, and feel that the next moment would surely be the last for me and the crew—that was my experience on a prominent Southeastern railroad several years ago.

I was on my way to Lynnburg, a station about one hundred miles from Clifton Junction, where I expected to catch No. 12, the east-bound passenger-train. As the train on which I was traveling from Langham was late, the east-bound train had left on its journey a few moments before I arrived at the junction.

Disappointed, because I was expected to relieve, the following day, an operator who was going on his annual vacation, I inquired of the operators in the main telegraph-office what chance I had to catch a freight.

I was informed that a light engine, No. 206, would leave immediately, following No. 12, for a station near Lynnburg, at which a freight-train had been wrecked.

Hastening to the railroad yards, I sought Engineer McDonald, who was to have charge of the light engine, but was informed by him that "there was nothin' doin'"; that it was strictly against the rules to allow any one to ride on the engine without a permit from some head official.

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

Rather disheartened, I started back to the passenger station, when the engineer called me back.

"What's your name, and what's your big hurry?" he demanded.

I modestly informed him that my name was McCoy, and that the telegraph operator for the road at Lynnburg had already left that city on his vacation, under the impression that I would arrive on No. 12 to relieve him.

"Well, I'll wait a minute; run up and see the super," said McDonald.

I rushed up to the office of the superintendent, and, securing the much-needed permit, quickly presented myself to McDonald, shoving the necessary bit of paper under his nose.

He quickly called, "All aboard!" and we were off.

The crew aboard the engine was composed of Engineer McDonald, Fireman Cole, Conductor Jones, Brakemen Kane and Hill, and myself.

At the invitation of Fireman Cole, I took a seat on his box, and, as I did so, I overheard a remark by one of the crew that the 206 was the third successive engine to be started out to the scene of the wreck. I did not think much of the incident at the time, but afterward its significance came to me with redoubled force.

"Ever take a ride on a light engine before, McCoy?" inquired McDonald.

"No, sir," I said.

On leaving Clifton Junction, and passing the bend on the opposite side of the river, the engineer jocularly remarked that he would show his passenger a "touch of high life," and opened wide the throttle. Along the banks of the river the engine went with rapidly increasing speed.

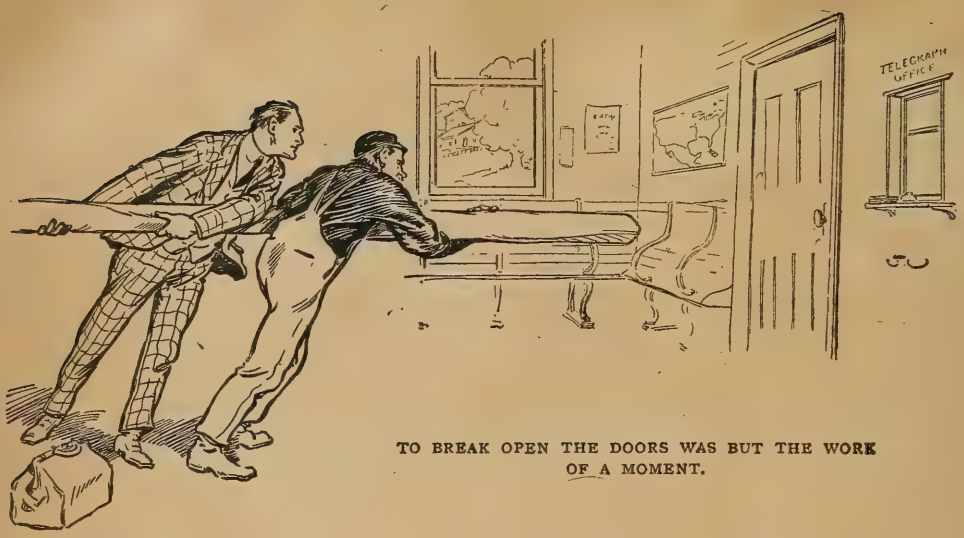
"Better look out for No. 12, Mac," suggested Cole; "she might get hung up before she reaches Mount Wilson."

Acting upon this suggestion, and fearing that for some reason the passenger-train ahead might have stopped at some one of the many curves along the line, the engineer decided to slow up.

To his great surprise, the throttle was immovable. Alarmed for the safety of all aboard, McDonald attempted to pull back "on center" with the reverse-lever. The result was disastrous, however; the "dog" snapped off, and the reverse-bar began whisking back and forth with increasing speed.

The engineer, astride the mechanism,

IT WOULD BE SURE DEATH TO TAKE THE LEAP.



TO BREAK OPEN THE DOORS WAS BUT THE WORK OF A MOMENT.

tried his best to control the engine, but to no purpose. Finally, his wrestling with the bar resulted in an injury to one of his legs.

"Great Scott! McCoy, I believe Mac's leg is broken," said Cole; "help me lift him off this place."

Together, we lifted the engineer from the vicinity of the jerking lever and placed him upon the coal-pile in the tender.

Meanwhile, we were speeding on to what seemed certain death and destruction. Luckily for us all, the regular scheduled trains were few in number, and our only fear, aside from a tail-end collision with passenger No. 12, was a head-ender with No. 9, the west-bound passenger. This train was, however, reported about two hours late previous to our departure from Clifton Junction.

During the excitement attending the accident by which the engineer was injured, the engine shot forward with increasing momentum. Fearing that it might leave the track at any moment, I grabbed my satchel and started to jump off on the side next the river, but was restrained by Cole, who assured me that it would be sure death to take the leap.

Rocking from pilot to tender, and swaying from side to side, the engine went whizzing by telegraph-poles and switch-lights, with here and there a high bluff, at a speed sometimes exceeding, it seemed, ninety miles an hour.

Meanwhile, the conductor and his two brakemen had remembered the first law of nature — self-preservation — and had clambered over the tender to the brake-beam in the rear, where they at least hoped to secure an easy fall.

"To the brake-beam for me!" ejaculated Jones as he made his way over the coal-pile of the rocking engine.

"Me, too," said Kane, who was quickly followed by Hill.

"Guess we won't have to fall very far, anyway, if we do go," remarked Hill.

"It's farther than I want to fall, at that," remarked Jones, as a settlement of further argument.

While the other members of the crew were seeking safety on the back end, the fireman began demonstrating his resourcefulness, first, by turning on "full" the injectors. Then, taking a hammer, he proceeded to smash the "pop-off," the whistle having previously been tied down to sound warning notes from the time of the discovery that the engine was uncontrollable.

Cole, with my assistance, then pulled the fire from under the boiler, after which the progress of the engine became slower and slower until, finally, just at dusk, it came to a dead stop about a mile from Mount Wilson Station.

Every member of the party heaved a deep sigh of relief as their feet touched the ground again.

But our troubles were not yet ended.

Upon learning that Mount Wilson, a telegraph station, was only a mile away, I suggested that some member of the crew walk with me to that place rather than wait to flag some passing train.

It was decided that the conductor should remain with the engineer. Each of the brakemen took up a position the regulation flagging distance from the now dead engine, while the fireman and myself walked to Mount Wilson, which station was, however, only open during the daylight hours.

Arriving there, we found that the agent-operator had left for a neighboring village to attend a dance, and would not return until late. Thinking perhaps the agent might have left behind the keys to the station, we inquired at his boarding-place, but were informed that our only chance to secure entry to the telegraph-office lay in our awaiting the return of the operator from his frolic.

At this juncture, the fireman again showed his cleverness.

"Here's a rail fence, kid; I guess that will help some," he said.

To secure a heavy rail and break open the intervening doors was but the work of a moment. After our forcible entry, I heard the despatcher calling stations down the line in an endeavor to find out what had become of No. 9.

Not waiting to seat myself at the telegraph-table, I reached over to the key, and attempted to "butt in" upon the despatcher to inform him of our precarious situation.

I was not familiar with the calls for the different offices along the road except that of the despatcher's office; and when I attempted to signal:

"To Di—" he jerked out at me. "Get out, will you!"

Finally the wire became clear for a time, and I had an opportunity to explain our unfortunate accident to the despatcher at "Di."

Requesting me to stay close by, he called Bellows Falls, another junction point, and asked him if engine 308 could quickly be gotten ready for a relief run. On being informed that it could, the despatcher told the operator to call out a crew in double-quick time and hustle them to Mount Wilson, at the same time putting out an order giving them right over all trains.

Meantime, the despatcher had notified all east-bound trains to approach the scene of the wrecked engine carefully, and to be on the lookout for a flag, following it with an order to me to hold all west-bound trains until further orders.

No. 9 had been having troubles of her own with her steam and with hot boxes; and before she reached Mount Wilson the 308 had arrived, and had towed the dead engine to a side track.

On the arrival of No. 9 at the scene, the conductor was placed aboard her, while the remainder of the crew followed on a west-bound freight.

When 98, a fast east-bound freight, came along, I boarded the caboose without waiting to apologize to the agent for breaking open his office. As I landed on the cushions in the rear of the car, I mentally resolved:

"No more light engines for me!"

THE OPERATORS' 10 COMMANDMENTS.

1. Thou shalt not sleep on duty.
2. Thou shalt do all telegraphing, as well as other work, in haste.
3. Thou shalt not swear, drink, smoke, chew, nor gamble.
4. Thou shalt not stop the "limited," for thou shouldst know that thy record will be charged with ten brownies.
5. Thou shalt not make excuses for thy mistakes, nor lay the blame on thy fellow operator, causing him to lose the job which he has gained with his own hard labor.
6. Thou shalt never lay off on account of sickness, nor for any other cause whatsoever, for thy pay surely stoppeth with thy labor.
7. Thou shalt not be content with doing thine own work merely, but shall help the agent in all of his duties.
8. Thou shalt answer thy call immediately, for thou shouldst remember that thou will be accused of neglect of duty.
9. Thou shalt honor and obey thy "boss," that thy days may be long on the job that fortune has given to thee.
10. Thou shalt not be content to allow thine office to be like a pig-pen, but shalt sweep it daily.—*Santa Fe Employees' Magazine.*

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 31.

(The Rogers Group. No. 2.)

THE RAILROAD MACHINIST.

BY ROBERT H. ROGERS.

NO man is better able to tell of the wonderfully picturesque time—from the shopmen's point of view—between the very old days and the present, than is Mr. Rogers. The attractive period of the shops, the period when romance and picturesqueness were an integral part of the life, was the period of twenty and thirty years ago.

Now the machinist is a man trained to take his place in any department, but at last arriving at the time when he must make a definite choice of the one in which he will make his future. To be an all-around man is an impossibility.

When once he has made his choice as an apprentice he becomes a specialist, all his faculties concentrated on mastering a branch of the machinist's trade, which in itself is as complicated and demands a wider knowledge of the inwardness of more mysterious things than did the whole range of the trade in the days of the skilful, picturesque "journeyman."

In This Age of Specialization, the Young Machinist Is Being Educated for a Career of Great Usefulness. Why the Roundhouse Attracts Men.

A FEW years back, they always referred to the railroad machinist as a "journeyman," and this appellation of endearing memories, dear at least to the older fellows who may read this article, has not, even yet, slipped into the apparent oblivion toward which so many traditions of the past in this stirring business seem to be unfortunately tending.

The railroad machinist has become a power in the land, and the now unfamiliar "journeyman" served a long way toward this end. Drop it at any time, when in confab with some power that is of the road whose experience antedates the past decade or so, and you will make a friend of him, or you will awaken his interest anyhow, and that is a whole lot, to which you will readily testify if you ever had dealings with a busy motive-power boss.

The old name came up unthinkingly, not so long ago, when the writer was in conversation with a prominent mechanical superintendent.

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

"I wish," he said, "when on your travels, you would pick me up a few good journeymen, to round out the gang I have. I need them—" And then the same thought seized us, and we smiled, reminiscently and happily.

The designation, inadvertent of course, was, nevertheless, a true echo from the past. Each of us, in days gone by, had been journeymen, and the recollection vibrated one of the sympathetic chords which make the world akin.

In the period when a boy who, in shop vernacular, "got free," or completed his apprenticeship, the established precedent was to quit shortly afterward, and to seek elsewhere experience which the home field, through possible limitations in size or scope of work handled, could not afford. Needless to add, this was long before the comprehensive system now in vogue of educating apprentices for future benefit to their own shop was even dreamed of.

Now this errantry has fallen into disrepute, largely because there is nothing to be gained by it. With the railroads spending annually vast sums to train their young men to particular ideas, for subsequent exemplification, it would be a poor investment, indeed, to make the future of the apprentice so unattractive that some other road would get the benefit of this elaborate instruction.

Moving West to the Money.

It was different then. Primarily, the machinist's pay wasn't there. Instances are plentiful on many roads, not so far from the Atlantic coast, where, in the early nineties, embryo machinists were started in as low as one dollar and seventy-five cents per day.

The proper compensation for a graduate apprentice was certainly not in the East, although it was known to be in the West; and, furthermore, the opportunities for advancement were lacking. Because these favorable considerations were in the West, or elsewhere, eight out of every ten apprentices, when "through their time," utilized what was left of their bounty, after a few days of time-honored and winked-at jollification, to get West, or, at least, out of town.

The two who remained were derisively scoffed at as "home guards"; and, no matter how good they might have been at their trade, were forced to take the leavings of the good jobs, in deference to possibly less able hands who, nevertheless, possessed the inestimable advantage, impressive to foreman and master mechanic alike, of having "worked around some."

This is how the term "journeyman" came to be applied to machinists; and some of these journeymen found the life of the road so attractive, and the knowledge that they had sufficient ability to make good in any shop between the rising and the setting sun so consoling, that they never did return to the home shop, and are journeymen still, after these many years.

Passing of the Picturesque.

By easy transition journeymen become "boomers," and to what is known of the boomers and their wanderings we owe all that there is of the romantic and picturesque in the railroad machinist's calling.

There is an element certainly pathetic, tragic almost, to the old railroaders in the passing of the boomer machinist and of his brother, the boomer boilermaker. No doubt, hundreds of a new generation still roam in desultory fashion the many iron trails west of the big river, but the familiar names will be recalled only by the veterans who may read these lines.

They have, one by one, dropped from the dilapidated roundhouses and tumbledown back shops which of yore characterized the desert country. The region of the Rio Grande, replete with stories of their escapades, knows them no more, but they will ever be associated with the days when machinists must perforce travel for money and experience.

Is there a master mechanic from Parsons, Kansas, to the Golden Gate, and from Seattle to the southern boundary of old Mexico, who has not encountered "Bum" Dailey, "Big Nose" Grant, "Windy" Lane, Pete Cody, George Tighe, "Dutch" Goodwin, George Lawler, or "Little Bill" Ritchie? There cannot be a single one, certainly none of the old school, because these erratic and versatile craftsmen missed working in but few places where locomotives do congre-

gate, on the western part of the map at least.

At El Paso, or in C. P. Diaz, you might have found, only ten years ago, these boomers of a truly remarkable period. Perhaps some of you have been there, and knew these fellows well, maybe worked with them, for all the writer knows; and if you are thus intimately acquainted, this story will ring true for you.

Some of the Lovable Characters.

You will remember that Mr. Lawler, in spite of eccentricities, was considered by all the foremen in the great Southwest to be the best machinist in the world, and you know of the things which he has done. Certainly you have not forgotten that "Bum" Dailey never owned a coat, or, if he did, he never wore it; and does there not remain a vague impression of his denim pants, inadequately secured about the waist-line with a trunk or baggage strap?

Remember how "Bum" blew into Albuquerque, New Mexico, once upon a time, looking so much on the bum that George Hancock, then master mechanic, and a very neat fellow himself, by the way, wouldn't give him a job simply on account of his appearance, badly as he needed good boilermakers?

"You don't look right, Bum," he said. "You've got those same old linen pants on, or whatever they are made of, that you had when you worked here six months ago. The sleeve is torn out of your shirt, and I can see your red hair sticking through your hat.

"I'd be ashamed of myself to disgrace the business with you. Trot along to the Colorado Midland, and come back here when you get fixed up."

"What do you want, George Hancock?" retorted old Bum. "Do you want a suit of clothes, or do you want a boilermaker?" And he went to work, as he had done many times for both George and Billy Hancock, and continued to do for the asking until the bell finally rang for him.

Have you forgotten that "Windy" Lane was the only itinerant machinist who carried "tools"? Can you think, now, what they were? Half of a begrimed two-foot rule, a pair of inside and outside calipers, a hook scriber, and a center punch. Small kit! But Windy secured many a roundhouse cupboard on the old Mexican Central, where cupboards were at a premium then, as they are now, simply on the argument that he must have a place where his tools would be safe.

What could he do with these elementary implements, worth, in the aggregate, about fifty cents? There was nothing which he could not do on a locomotive, from the ground up, and his ability, although he remained in a shop only from one pay-day to another, and often not that long, was so conceded that a job was his in any shop from Paducah to Barstow.

Bill Ritchie was a boomer, but he was a credit to the trade of the boilermaker. He forsook at last the rôle of a bird of passage, although few of those briefly mentioned have done so; and recently he passed away while in the responsible position of general foreman boilermaker on the Erie Railroad.

He could narrate incidents connected with his contemporaries of the past, and refer complacently, even, to experiences of his own, in a way which the writer knows has served to convulse with laughter some of the highest officials of the railroad, during an informal session, when somebody's private car was backed off along the line somewhere.

There is much amusing, of course, in such reminiscences. Even our personal adverse experiences become humorous after time has removed their poignancy; but, after all, there was hard work, and grief in profusion, in following the business during the period referred to, and there was little to choose from in this regard between what might be found in the home shop or elsewhere.

No Labor-Saving Devices.

The trade of a journeyman machinist, say twenty years ago, was not the trade of to-day, and with which this article properly has to deal. There were few, if any, labor-saving devices. No traveling-cranes capable of raising a one-hundred-ton engine bodily, wheels and all, to do with as you list.

Engines had to be jacked up, and with more or less refractory screw-jacks at that. Very few valve-seat planers were in evidence.

When a seat had to be trued, and this was quite a common operation before the advent of the balanced slide-valve, there was no alternative but to go after it with a hammer and chisel, until down to where a file could complete the job.

This chipping a seat was no slouch of a job, either, and it is entitled to a little special mention. It is doubtful if one machinist in fifty of the present day could do it; that is, in the time in which such things were supposed to be done then.

The Great Work of Art.

It was necessary to take an even chip over the entire seat, an area of, say, twelve by sixteen inches, and the least miscalculation in the angle on which the chisel was held must inevitably result in a terrific gouge, which might require hours with a file to get out.

There was no guide whatever but the steady eye and hand; and yet the writer has seen this cut so perfectly taken that less than twenty minutes' filing would be required to have the seat ready for the valve to be spotted down.

It was a proud day for any ambitious young man to be entrusted with this job, because it was a concession to his ability as a mechanic.

If studs or stay-bolts had to be removed from boilers, they must be trimmed off even with the sheet, and the portion then remaining chipped out. There was no air-drill, which you can procure from the tool-room now for the asking, and which will take care of a dozen bolts while you are cutting out one.

When cylinders had to be rebolted, such of the old bolts which would not back out had to be removed by drilling, and drilled with a hand ratchet. The holes were made ready for the new bolts by reaming in the same crude way; and when cylinders were rebored, the wheel operating the mechanism of the boring-bar was turned patiently and laboriously by hand, not to mention that it mustn't stop when the last cut was going through.

A hammer, monkey-wrench, and chisel were the foundation tools of a machinist's kit, and the only other implements considered as really necessary were a two-foot rule, a pair of outside calipers, and a pair of inside calipers. These were sufficient, with what you or your helper could borrow, to make a very creditable showing in the roundhouse end of it. For machine-hands add a thread-gage, surface-gage, pair of dividers, center punch, and a square.

The majority of these fellows made their own tools, generally while passing through the period of apprenticeship, and some of their creations remain as enduring monuments to patience and ingenuity. Take those solid steel squares, for instance, with six or eight inch blade and heavy butt, which were the pride of all machinists to own, and the dream of every apprentice to make.

They were so cleverly put together that the eye, unaided, could not distinguish either the joints of the parts or the heads of the countersunk rivets which united them. It was a mark of distinction for a man to have made the working implements of his trade, and the majority did so, even to their treasured ball-pein hammer.

"Hogging" the Tools.

One of the most annoying features with which a boomer had to contend was the dearth of wrenches, etc., actually required for the daily work at hand. On account of no tool-room system in those days—in fact, no tool-rooms, except in polite misnomer—the "home guards" had the wrenches, sledges, spring-pullers, and blocking, and occasionally even such of the screw-jacks which would work, locked up in cupboards or hid away somewhere.

This was where the regular hands who stuck by the shop had the best of the floating element; but the boomers had the names of shops where a dearth of tools existed entered in their notes, and did not work in them unless they had to in order to reach the next place.

There was no such thing as a specialist during this period. When a boy was out of his time he was known as a machinist, and was presumed to be equally competent in roundhouse, back-shop, or machine-shop.

A journeyman was familiar with the air-brake; that is, he tackled the jobs on pumps and triples in due course, if they appeared on the roundhouse work-book. He was also supposed to possess a smattering, at least, of what the present-day pipe-fitter is paid to handle exclusively.

He was a blacksmith, in a way, because he would invariably dictate to the tool-dresser the desired color to which the temper of his chipping-chisels should be drawn, and he was also a bit of a carpenter, as he had to get out the blocks to put under the engines when the wheels were removed, and to fill the ports in the valve-seats of the cylinders.

Could Do Anything.

They were truly worthy of the title—"all-around men." Certainly, the picturesque boomers were. It wouldn't do for one of the latter to strike a town where a dearth of machine-men was in evidence and take the next freight out, simply because the bulk of his experience had been in the roundhouse end of it.

These gentlemen passed with equal facility into any department where an opening existed; and, as a rule, they delivered the goods, too, while they stayed there, even if the stay was limited.

This is the great contrast between then and now, and is the point where properly the story of the modern railroad machinist should begin. The business has of late years become largely, if not entirely, specialized.

The Four Groups.

The trade, so far as the railroad is concerned, might be boldly divided into four great groups: machine-hands, who transform the rough product of the foundry or blacksmith-shop into the finished article for repairs or renewals; floor-men, who assemble these parts into the complete locomotive, whether a new or a thoroughly repaired one, in the erecting or back-shop; roundhouse-men, who make the repairs necessary to maintain the locomotive in service until its mileage runs up to a total entitling it to a place in the back-shop for general overhauling; and tool-room and air-brake hands, who make and repair all the tools used in the various departments, repair the parts of the air-brake in entirety, and also the various auxiliaries of the locomotives, such as injectors, pops, whistles, and gage-cocks.

Specialists Now the Rule.

It is an almost unknown procedure now for a machinist engaged in any one of the above departments to be ordered to do even temporary work in one of the others mentioned. Yet the time is not so far removed when, if work became slack in the machine-shop, the men would be instructed to report to the roundhouse foreman; or, if there happened to be a wreck on the line, and the engines were delayed arriving at the roundhouse for their daily attention, some of the incumbents of the latter would run a lathe, planer, or boring-mill until normal conditions in their individual line had been restored.

The division of machinists' work into branches, as heretofore indicated, and the coming of the specialists, had its origin coincident with the tremendous development of the locomotive which began about 1890. Previous to that time there had been a period of, say, fifty years during which no improvements to speak of were made in either equipment, shops, or shop practises.

Locomotives of one generation were, to all intent and purpose, merely duplications of what had gone before. The way mechanics had themselves learned to do the various jobs, whether on machines or at the bench, was so taught by them to the apprentices; that is, if they had the inclination to teach them anything at all, as there was no compulsion for them to do so.

Unless in the instance of some particular shop, which may have been presided over by a young and progressive master mechanic, there was no initiative in evidence, and little attempt at original research on the part of the men to improve on time-honored procedure.

The Difference of Conditions.

This may afford a reason for the "all-around" machinist, or, in other words, the versatility of the journeymen and boomers of the period, a quality which, in

the degree exhibited then, would, to-day, be simply impossible of attainment. They could easily be all-around men, because there was little to get around.

Outside of the painful lack of labor-saving devices, which necessarily called for a much superior degree of skill and judgment than is now requisite to be a successful machinist, there were really only a few important jobs.

Any old-timer, if you talk to him about it, will get these down to five, viz., chipping a valve-seat, hanging or lining four-bar guides, setting valves, filing or reducing back end of main rod brasses, and patching a broken cylinder. And if you once learned thoroughly these operations, no matter where you went in the country to work, they were exactly the same, because all locomotives were alike.

All were single expansion, outside cylinders, narrow fire-boxes, eight coupled wheels for freight, four coupled for passenger; so very similar, in fact, to those you served your time on that, barring the inscriptions on their tanks, you might have imagined yourself back home.

Andy McWilliams, a veteran of the Southwest, truthfully defined it, when the writer sought advice from this Nestor, prior to his first essay into the unknown as a jour.:

"Don't lose your nerve, boy. The only things you will find different from here are the men's names and the engine numbers."

Complications and Progress.

Now we have both simple and compound engines; single, articulated, and geared, even. There are compounds of the four-cylinder type, with a high and low-pressure cylinder on each side; of the cross-over type, with high-pressure cylinder on one side and the mammoth low-pressure on the other; tandem compounds, with a high and low-pressure cylinder on each side, arranged in tandem fashion, one ahead of the other; and still again, of the balanced type, with high-pressure cylinders between the frames driving a cranked axle, and low-pressure cylinders outside the frames driving the wheels direct, as originally constructed.

Then, if the complication herein enumerated does not suffice, to cap the climax might be added articulated compounds—monsters weighing over two hundred tons for the engine without the tender, two engines in one, although supplied by the same boiler.

The comparatively simple Stephenson link motion, of which in every detail the majority of the boomers were masters, is now largely supplanted by the unfamiliar Walschaert valve-gear. Steam superheaters have been introduced within the smoke-boxes. Solid brass driving-boxes, which, with their finished weight of but one hundred and fifty pounds, were ample twenty-five years ago to support their load, have given way to cast-steel boxes weighing over four hundred pounds.

Passing of the "Particular" Jobs.

Cast-steel frames and wheel centers have succeeded the wrought iron and cast iron of yore. Tender tanks have grown in water capacity from three thousand gallons to eight thousand and even ten thousand gallons.

The five "particular" jobs, to which the old-timer may have referred with much complacence, now number five hundred, each requiring the equal and exacting care.

"If a boomer were to start now over the circuit which many of us have worked again and again, he would scarcely find a similar type of locomotive in two of all the shops he would strike.

No one man could ever become master of the wealth of detail which these facts imply. Consequently, the all-around man passed, as have passed his still loved and venerated "particular" jobs, both victims of the development of the country and the increased traffic conditions necessary to meet it.

Roughly speaking, it requires the expenditure of $3,500 per year to take care of each and every locomotive owned by any railroad. Of this, $1,750 for general repairs, which heavy service usually renders arbitrary at the expiration of each twelve months, and a like amount to pay for the attention which it must receive daily during the intervening period.

On a railroad owning 1,500 locomotives this would reach the formidable sum of nearly half a million dollars for labor and material incidental to shop and

roundhouse operations alone, not to mention the oil and supplies, or the pay of the engineers and firemen.

The Most Important Trade.

Although some eight or ten trades are represented among those who benefit by this amount in wages, it is safe to say that an even half of it is disbursed to machinists alone. Not in anyway derogatory to the importance in the general scheme of the boilermaker, molder, or blacksmith, the fact remains that this is the predominating trade, as it has long been recognized as the most conspicuous.

To combat the problem of prompt, economical, and adequate repairs to power which has assumed so much complication necessitates resources beyond the conception of those who fought it out only a quarter of a century ago.

The Philadelphia and Reading Railway has recently completed shops at Reading, Pennsylvania, which may well serve to illustrate these requirements. This magnificent plant can turn out over one hundred locomotives per month, of which twenty might be new ones.

In fact, so broad is the conception of the problem in that quarter that the policy of the motive-power department of this company, as recently outlined to the writer by its mechanical superintendent, H. D. Taylor, is to be entirely self-supporting. They have not for a long time purchased a single item connected with the maintenance of cars or locomotives, not even the tubes used in the boilers.

Shops of the New Era.

In a somewhat less degree this innovation of the last decade or so is in evidence all over the country. The Baltimore and Ohio has vast possibilities in its Mount Clare shops, located in Baltimore, covering an area of sixty-five acres; and the mammoth establishment of the Lehigh Valley, at Sayre, Pennsylvania, cannot only take care of the annual repairs to all of its rolling-stock, but has facilities to add new locomotives should necessity arise.

The old, poorly lighted, and tumble-down machine-shops, landmarks, and indexes in the past to railroad terminals, with their antiquated lathes and planers, shapers, and single-bar boring-mills—all driven from one line shaft—have been replaced by immense structures, scientifically illuminated and ventilated, and every machine, of maybe one thousand, with its independent motor-drive.

Gang-drills, capable of drilling a dozen holes simultaneously, have taken the place of the venerated drill-press, with its single spindle and wofully battered drill-table. Gang-slotters, with four and even six heads, plow industriously in shaping pedestals on half a dozen frames, piled one on top of another; and horizontal mills dispose of the bore of a driving-box in an even eight minutes, from start to finish, an operation which, on the face-plate of a lathe, formerly required at least an hour.

Where work had to be laid out before, and prick-punched with the utmost care along the lines where metal had to be removed, jigs and templates do it now. With one of these clamped on the job, it only remains to run the drill through its case-hardened holes, thus removing the human fallibility of the "layer-out" to err.

The Apprentice's Choice.

Planers have grown and grown, until they will handle the machining of fifteen driving-boxes with the one chucking; and one ingenious machine, when intelligently operated, will even properly locate and cut the eccentric keyways in an axle long before the wheels are put under the engine.

Specialization on the part of the machinist must be incidental to this revolution, although it might be inferred from the broad, general training of the apprentice, outlined in a previous article, that the reverse was intended to result from his education.

This, however, is not the idea. The apprentice is given experience in machine-shop, erecting-shop, and roundhouse, not with the expectation that he will be equally competent in all departments when out of his time, but in order that he may have opportunity to decide on the one most appealing to him.

Very little acumen is required on the part of the shop supervision, after a boy receives his certificate of apprenticeship,

to determine whether he is best fitted for a machine or a floor-hand. If this decision should be unsatisfactory to the graduate, in many shops he is allowed to make his own selection.

Those who are assigned or elect to follow the machine-shop end of it are placed on a machine at day wages, from $2.80 in the East to $4 in the West, or on piece-work at what they can earn. Whether day or piecework, however, it is known to the shop management, from carefully prepared statistics, based on actual time studies of all the operations, just how much each machine should turn out in a working day, and, needless to add, it is insisted that this output be maintained.

This is the cleanest and apparently, to the majority of machinists, the most attractive subdivision of the trade. The "floor," or erecting end, is rougher, and certainly requires more physical effort.

Although the shops are now equipped with overhead cranes for raising the engines, and portable cranes for handling cylinder-heads, steam-chests, and other heavy parts, there is still much lifting to be done.

Previous to 1890, there was not a cylinder-head which the writer could not, unassisted, take from the floor and put on the studs, and few main or side rods which his helper and himself could not carry on their shoulders to the machine-shop; but now some of these main rods weigh over a thousand pounds, and the cylinder heads are so cumbersome and so buried behind other parts as to be unmentionable.

The Erecting-Shop.

The erecting-shop machinist has his work confined to assembling the parts as they are delivered, whether new or repaired, by the machine-shop. Further specialization is in evidence in this department. For instance, one man, or a gang, will handle the pistons, guides, and cross-heads; another the steam-pipes, and still another the springs.

Regular men are always assigned to the exclusive work of setting up engines, that is, adjusting the backbone of the machine, the cylinders and frames; and there is always a valve-gang, charged solely with hanging the motion work and setting the valves. These men receive about similar compensation to the machine-hands.

The exacting end, and likely the most vital to the general scheme, is the work performed by the roundhouse machinist. It is the hardest branch of the trade; hardest from any viewpoint, physically and mentally.

The machine-men and the floor-hands follow a certain routine. That is, they can closely estimate at the close of each day what is ahead for the next; but no living mortal can foretell what an engineer will put down on a roundhouse work-book. What he does indite may be reality, hobby, or supposition; but, be it as it may, the machinist must give equal effort in repairing the defect if it exists, or demonstrating the fallacy of the written report if it does not.

The Disenchanting Roundhouse.

The principal items requiring attention on locomotives between runs, in the machinists' line, are the elimination of "blows," whether in cylinders, valves, or steam-pipes; leaky piston or valve-steam packing, broken springs, hot or loose rod brasses or bushings, and injector troubles. None of these are easy jobs, on account of the conditions and the environment which attends them.

In the first place, the majority of the parts to be worked on in the roundhouse are hot, as naturally might be expected with the engine fresh off the road, making the handling of them equally identified with dexterity and profanity. The interior of the roundhouse, no matter how modern it may be, is disenchanting.

It is all grease, smoke, and dirt. Pools of water, miniature lakes sometimes, inundate the uneven flooring. Steam hisses from innumerable leaks in blower-line and other piping incidental to the establishment, and pandemonium reigns generally through the discord created by open blow-off cocks and a myriad stack-blowers operating in unison.

These features may not be applicable to all roundhouses, but they may readily be identified with seventy-five per cent at least. It is a curious fact that in the general rehabilitation of repair plants which

has been effected, that the roundhouse has always been the last department to receive attention.

The roundhouses stood still, while the locomotives which they were intended to house grew and grew. Without doubt, at this writing half the roundhouses in this country are so out of date that when a modern locomotive enters one of them the doors cannot be closed behind it. You can imagine what this implies in the dead of winter to the fellows working on the shoes and wedges in the pits.

These few instances of the general discomfort inseparably connected with roundhouses may serve to explain why the lot of the roundhouse machinist is a hard proposition, but it has, nevertheless, proved the most attractive to many men. Waiving the slight increase in compensation over the machine and back-shop, this is because the work is always new.

No roundhouse man, with his heart in his work, ever knew a long day. You never know what is coming in the way of a job, or what difficulties will present with it. It maintains interest all the time.

As a rule, roundhouse machinists are versatile. They can handle anything in the line of that work, and it would be difficult in this department to build up an adequate organization of specialists. The historic boomers were at the bottom, and, in heart, roundhouse men.

Of course, they could tackle a machine or a vise job, but they dug out what they knew—filing brasses, lining wedges, and grinding steam-pipe joints. It is a department which develops resourcefulness.

No two jobs on the same part, even, are ever duplicates, and each and every one requires more than the conceded allotment of judgment and good temper, if the engine must go out on its run, which it generally must, unless there is a prevailing dearth of extra power.

The machinists' trade, as a whole, is a good one. A bright boy makes no mistake in learning it, but it is no field for a "jughead." It pays well, too, and is improving all the time in this regard.

The two dollars per day which the writer received twenty years ago for all-around work has grown to three dollars and twenty-five cents per day in that same shop. They are paying on the Santa Fe four dollars and twenty-five cents in all shops west of Albuquerque, and there is a bonus system besides, in which a machinist's daily pay is guaranteed, and he can make as much more than that as his ability will allow.

It is the trade through which the roundhouse foremen, general foremen, master mechanics, and mechanical superintendents all make their way to the top. It is safeguarded, also, in these prosperous times in a way little short of marvelous to an old-timer.

It has its own and powerful organization, the International Association of Machinists, which is strong enough to secure working agreements with railroad companies, practically dictating compensation, hours of labor, and defining what constitutes machinist's work.

Just so long as stuff remains to be transported from one point to another, the steam locomotive will be there to haul it; that locomotive will require the same old repairs, and the railroad machinist will be there to make them.

In the next article in this series, which will appear in our June issue, Mr. Rogers will describe the occupation of a roundhouse foreman.

FEEDING THE LION BY WIRE.

IN the Morse telegraph code the letters "T" and "L" are very similar, the "L" being a slightly longer dash than the "T." Unless operators are expert in receiving messages, they are very apt to make a mistake in these two letters. An instance of this was brought out the other day by H. L. Metcalf, who told the following story:

An agent in a small town on the lines of the Southern Pacific found a portion of the foundation of the freight-house had caved in and sent the following wire:

"Foundation under freight-house needs attention. Please instruct."

The message was received by the freight department:

"Found a lion under freight-house. Needs attention. Please instruct."

His instructions were: "Feed the lion and notify the live-stock agent."

When Trouble Gives the High-Sign.

BY RICHARD MAXWELL WINANS.

"WHEN a black cat crosses my right-of-way I back up and take another track," says the old-time news butcher after reviewing the incidents of a trip in which Disaster spiked all the switches and kept a firm hand on an open throttle. Fortunately, Good Luck sat on the pilot and did her best to keep our friend from a derail, but the value of live-stock went up by magic in that section by the time the claim-agent heard of it all. But Butch's memories of trouble are sometimes merry. Especially you will think so in the case where the trouble was of his own making—for somebody else.

Butch Lays Off His Run and Gets into Clear Long Enough to Tell Us How He Gave the Big Hole to an Expressman's Conceit and Pulled Through a Remarkable Day's Run.

"THAT was back in 1887. I was 'butchin' then. And I ain't likely to forget some of the rough-and-tumble experiences and escapes I had while I was holding down that job, either.

"I didn't just exactly run away from home to take up the job of a newsboy on the railroad, but my parents opposed my going so much that it almost amounted to the same thing. It resolved itself into a simple matter of allowing me to have my own way, with the hope that I would get some of the starch taken out of me without serious mishap. As my grandfather had previously predicted that I was born to be hung, I suppose they felt that I was immune from wrecks and such things.

"On the third day's run my faith in the old man's prophecy was strengthened considerably. We were just entering a stretch of track that has the Lehigh's snake trail looking like a straightaway, and I was just passing from one coach to another with my arms full of magazines, all unaware of the curves ahead, some of which were mighty near angles.

"I closed the door behind me and stood for a moment, both arms about the bundle, breathing deeply of the fresh summer air, when a voice called my name so sharply in my ear above the roar of the train that I turned to see who it was, only to face space.

A Ghostly Warning.

"Following my name there came the words, equally distinct: 'Hold fast—be *quick!*'

"My fingers had only closed on the brake wheel when we hit a sharp curve that pulled me off my feet, threw me to my knees on the step and sent the magazines in a wild flipflap out over the fields. Well, maybe grandpap was right.

"I was hooked up with the Union News Company, working out of Cincinnati, and my runs were over the Cincinnati, Hamilton and Dayton to Toledo, and over the Monon to Chicago.

"News 'butchering' those days wasn't any rosy-hued pipe-dream; leastwise not so that you would recognize the brand more than a train-length away, especially when a fellow had the hard luck to be under the devil's own kind of a superintendent that I had over me.

"Sometimes, when I get on a double-headed grouch, I think of him, and almost wish he has made his last run, and that I'll live to be good enough not to go where he did. The boys had to put up a deposit of ten plunks, and keep that much up all the time.

"Well, he'd manage to steal the deposit regular about every four weeks on the check up. That's why I can advisedly say I was 'hooked up.'

Little Home "Touches."

"I don't remember his name, and I'm glad of it. We worked on commission, and I know that what was left to me after he got his mitt on the rake-off was just about enough to pay for a fifteen-cent bed at the south end of the line—I slept in a sided coach at the north end—and buy a ten-cent *table d'hôte* on state occasions, with a run in at a free-lunch in between.

"Well, I didn't care those days, for I had a good home back on the farm to go to whenever I felt like sidetracking the job. But, like any other kid of fifteen or so that had been feeding his steam-dome on high-pressure dime-novels from the time he could appreciate real classy romance of that elevating order, I was out for the adventure of the thing, and before I quit I was handed a whole stomach full. It didn't come on a silver platter, either.

"Meantime, as a matter of necessity, I was writing very 'touching' letters to *pater* that always brought real cash money from home to meet such expenses as my niggardly commissions on sales failed to cover.

A Good-Natured Kid.

"I have forgotten the names of most of the different engine and train men; but I remember that I was such a good-natured kid, always willing to do anything for them, from carrying water and repacking a hot box to taking tickets or running the engine, that they were all my good friends.

"There was one old razor-back express messenger, though, that I had a run in with once that didn't seem to couple up with me very friendly. It was what was then known as the *Enquirer* paper train, run on Sundays up to Toledo.

The Messenger with a Grouch.

"The messenger who had the run before they put this old grouch on was a good fellow, and I used to help him make his running deliveries of the large bundles of papers from the car-door as we shot through the smaller towns. That train was out to make time, not stops, except at junctions and large cities, where great truck-loads were dumped.

"Well, the first morning that old goat took the run out I came down to the express-cars where the papers were being loaded, under the messenger's direction, from the big trucks and drays of the different newspapers. After the last of the line had cleared away I went to the car-door to ask for my "train" papers, as usual.

"It was about three-thirty, and still pretty dark around the sheds, so I didn't notice the change of men. When Billy was on, and the racket in the yards too dense to cut by hollerin', I just whistled a couple of times, and Billy'd shove my bundles, which he always set aside, out to the car door.

"I tore off a few Tettrizzani highs without getting him on the wireless, so I ripped off a few yards of paint from the inside of that express-car with a whistle loud and shrill and piercing enough to rouse the sleeping community for a block around.

Laying the Trouble-Train.

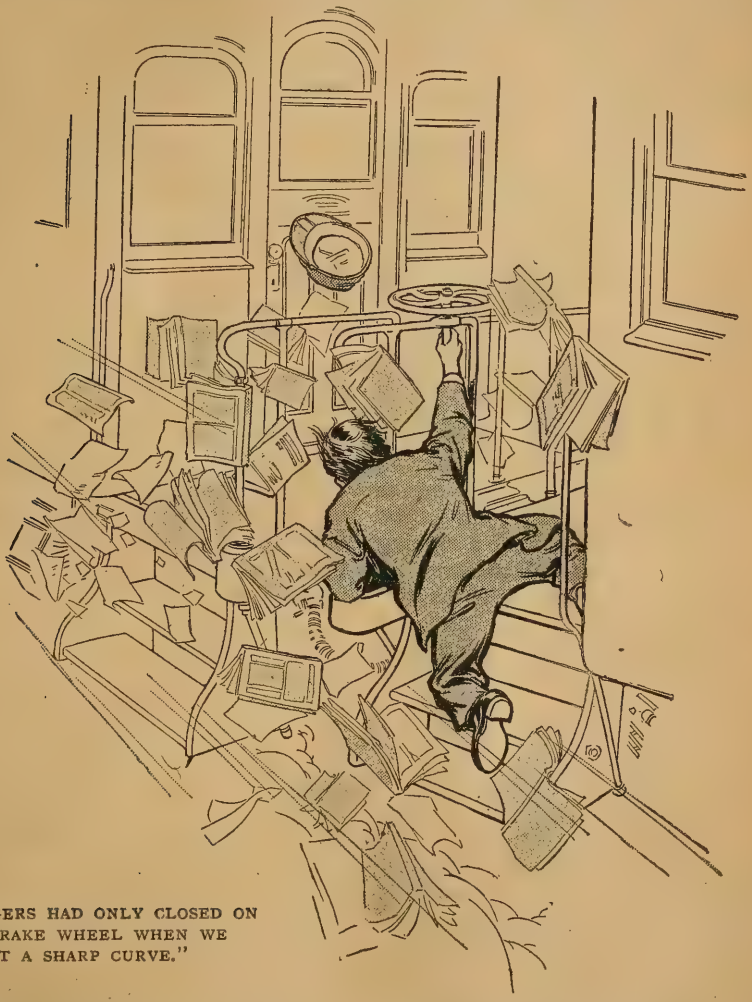
"Well, say, if old whiskers had been coupled up with one of them electrical slot-machines when turned up full in the corner, and somebody'd dropped in a nickle and cut it loose on him, he wouldn't have set up and took notice any more sudden. He just let out two grunts, and in one jump was at the car door, his hair and whiskers all bristled up like the back of a tomcat ready for a fight.

"'Hey, you young devil! What do you think I am—a dog? Whistle for me, will

you? I've a good notion to kick that pie-face of your'n clean into the back o' your neck. The next time you do it, I will. If you want your papers, git 'em yourself!'

"I did. But I resolved he'd remember the occasion. He did.

"We had hardly cleared the yards out from me to have time for anything more strenuous just then, so I was extended a cordial invitation to lend a hand. From the developments that resulted before I got through mixing things up in that car I'll bet a stack that the old codger was real glad that I didn't have mor'n one to lend.



"MY FINGERS HAD ONLY CLOSED ON THE BRAKE WHEEL WHEN WE HIT A SHARP CURVE."

of Hamilton when the old boy leaves the express-car and pokes his head into the coach-door and passes the distress signal to the conductor. He'd got all balled up in stacking his car of 'first-out,' and he wanted the brakie to go up with him and help sort out.

"Jimmie was too busily engaged in the pleasant task of reading the death notices and obituaries in a paper he'd swiped

"Of course, I'm not on the carpet to explain how all the things happened that morning, but it may have been due to a little disinterested carelessness on my part in arranging the bundles near the door for the running deliveries for the different towns that led to the sweet-tempered old gent's throwing the Miamisburg papers at Carlisle, and so on, in several instances. He'd never made a flying delivery before,

and so when he let loose the first bundle at Carlisle he took the top clean off some back-country agent's buggy standing near the track.

"He wanted me to throw the bundles for Franklin, which is across the river from the C. H. and D. station, but as I saw prospects of further similar stunts I pleaded a lame shoulder. We were by the station before he let loose with the first bundle of about seventy-five pounds.

Ignorance Couples Onto Bliss.

"He wasn't a good second to Michael Sheridan on throwing, but we were wheeling along at a flat sixty, if an inch, and the momentum carried that solidly tied bundle of papers clean through the side of a frame-house standing alongside the track, presenting the family a bigger batch of reading matter than they had probably ever had before collectively. And that bundle was originally intended for Lima, at that.

"At Johnston's Station he again gave evidence of his extreme amateurishness in making a flying delivery by sidewiping the three posts that supported the high station platform, letting it down with a ripping crash and some just-as-well-unheard remarks from the station-agent as he slid ungracefully down and lit on a bundle of papers labeled 'Piqua,' a town about forty miles up the road.

The Messenger Wakes Up.

"But that old goat went calmly on enjoying the bliss of his ignorance of errors being checked against him that morning. I was too inconsequential to look at, let alone hold converse with.

"When we reached Dayton, our first stop, an irate official handed him a bunch of telegrams that had been pouring in from down the line and from the various newspaper offices in Cincinnati that dispelled his ignorance—also his bliss. Also, I may add, this was his last run on the Sunday paper-train.

"'I say, Butch, do you believe much in signs?' asked Charlie Matterson, successor to the old goat afore related of.

"'That depends mostly on the reading on 'em,' say I. 'Now, I took a run into a place up in Toledo one night last week where there was a sign that read, 'Hot Free Lunch All Day. All You Can Eat. Help Yourself,' so I slacked ahead a bit and coupled on and started in to follow directions, when a two-hundred-pound bouncer got his knee in a rear-end collision with my freight and put me in the clear.

"Since then I have lost my abiding faith in signs.

"'Naw, kid! Say, you got a loose brake-shoe; get it fixed. What I mean is signs, portents, omens, forebodings, and that line of dope. You know, where something that is going to happen is foretold by something that you see or hear or that occurs to you, like a black cat following you and meowing a tune like a funeral march in "Saul," or anything like that—do you see?'

Signs and Counter-Signs.

"We were perched up on the four-story stools of the depot lunch-counter taking our coffee and—before going out to the yards for the Sunday paper run.

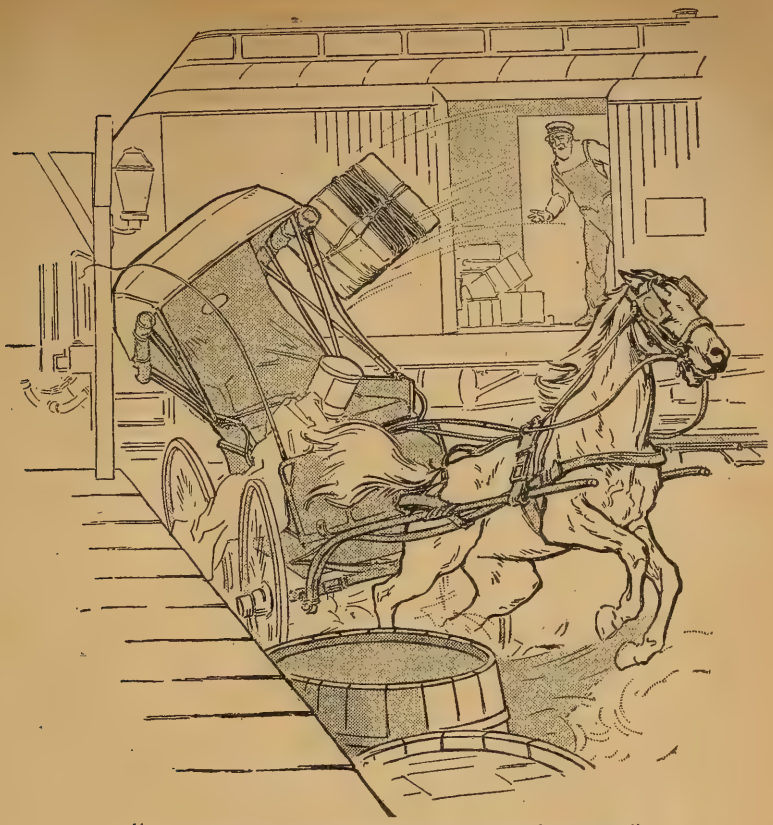
"'Well,' said I, thinking I could switch him off his bad-luck argument, 'as another instance, there's a sign over there that reads, 'Best Coffee in the City,' and if some husky guy from up-State gets a dose of this slop it will sure portend bad luck to that sign.'

"'Oh, say, back up! You're too derned facetious. That don't answer my question.'

"'Well, then, I'm not very superstitious. But why? What's got on your right of way overnight? You were as happy as a boy just out of school coming in on the run last night. Now you look as though if you'd smile you'd do some bodily injury to your face.'

Charlie's Numerous Warnings.

"'Just this, kid. I'd advise you to report sick this morning, and not go out on this run. Something's goin' to tear loose before we double back, an' I know it. For why? Well, old Jackson's dog howled for two hours steady last night. I dreamed I was butchering an ox. When I got up I started to put on my left shoe first. My wife told me she dreamed she saw me surrounded by a flock of sheep—



"TOOK THE TOP CLEAN OFF SOME AGENT'S BUGGY."

and sheep are always unlucky when you see them in dreams."

"'I forgot my pipe, and had to go back and cross the threshold to get it. A big black tomcat followed me for three blocks, meowing like a steam calliope, and when I came in through the shed I passed one of the cars they've set out for the paper run, and there's a "13" first in its number.

The Trouble Begins.

"'Now, kid, you couldn't beat that hand of ill-omen, not even if you had the whole deck to pick it from,' and he slid down from his aerial tower, carefully wiped his mustache, and gave me a look which said: 'And you can't deny that!'

"I was just going to pooh-pooh his 'sign' ideas, when there was the rattling clash of a patrol-wagon gong, and we could tell by the sound that they were driving right into the yards back of the main-track shed. We were ready to start, anyway, so we walked hurriedly out through the station and shed to learn what the trouble was.

"First thing we came to was a pony-yard engine, standing on one of the main line make-up tracks, blowing off, and no one near her. It was still quite dark, and Charlie held up his lantern to have a look at her.

"'Great Heavens, kid, look there! Look at them drivers and side rods! And look at them links under there! It's blood!

"Well, they picked up what was left of that poor devil in water-buckets. He had been crossing the yards in the dark and got caught in the wheels of the pony.

Butch Will See the Fun.

"We went silently back to the car to wait for the papers to come down, and Charlie sat on his box without a word. He had come to the road from the West, where he run in the days when an express messenger had use for a gun, and he didn't know what it meant to be afraid of a man.

But I could see by the flare of the lantern that his face was as pale as ashes.

"Finally he looked up. 'Kid, you keep off this run. That thing out there is only a curtain-raiser to what's goin' to follow in to-day's play.'

"'You going, Charlie?' said I.

"'Going? Sure!'

"'Then, so am I.'

"'But it's different with me, kid. I got to go. Like as not, though, I'll come back in some other fellow's car—in a box.'

Taking It Out on Them.

"We had cleared Hamilton, when a red flag pulled us down, and we ran up to a gang of section-men having trouble at a road crossing where a traction-engine had passed over with the hook end of a log-chain dragging that had caught on a rail edge and slewed the track. Old Dan swung down out of the cab and called 'em all the things on his variegated list, and Conductor Thomas finished up as picturesquely spectacular a line of tongue fireworks as you'd find.

"I think that bunch of dagoes took revenge by holding us there for an hour, and an hour behind the schedule for that train meant a lot of trouble ahead.

"Dan climbed into the cab, with the remark that he was going to shove her nose into Dayton on time, even if he had to drag in some of the track and a part of the road-bed with him, and he came mighty near doing both. He just slipped her up on the links as far as she would stand, and still cut her steam; and, well, say, when we saw a town in the dim distance we started to put off papers, but they mostly landed a couple of miles beyond.

Old Dan Decides to Speed.

"Dan was dragging her in, all right, and first thing we knew we were crossing the river into the lower yards at Dayton. Dan didn't ease her up much till we had covered most of the yards and were in sight of the Union depot, when at one and the same time he cut her off and gave her the air hard and tight.

"But, light as we were, he couldn't hold her, and we jammed into an open switch and smashed into a pony-engine on a spur. We had got there before the sound of our whistle at the bridge had reached them—so they said.

Charlie Gets His.

"I was on the rear platform to drop a paper for a flagman I knew, and had just opened the coach-door to come in; and I came right on in without waiting to close the door. I bumped slightly against the back of a seat, and my watch broke from its couplings and started on a trip up the aisle. I think it struck every seat on both sides, and finally landed against the farther end of the car, a dismembered and tangled mess of débris.

"The few passengers were mostly hanging over the backs of the seats in front, and all hollerin' for help. But my first thought was of Charlie up ahead, with tons of papers piled in the rear of the car. When I opened the door I saw I had guessed right. The bundles had shot ahead in promiscuous heaps and piles, and Charlie nowhere in sight.

"We finally pulled the poor cuss out, with a leg and four ribs broken. While I was holding his head on my knee, until the ambulance came, he said to me: 'Kid, I told you not to take the run out to-day. Better lay over here and go back. There's more coming.' But I wanted to see the rest of the show, so I went on.

The Cat Gets in Again.

"I heard months afterward, when he was at work again, that he refused to take out a run because a black cat, chased by a dog, had jumped into his car while he was loading at the platform.

"Jake Lareau coupled on his 27 to the 'paper,' and we started on the run to Lima. We were still behind the card, but Jake had a reputation that left no doubt as to what he would do with us. And he did it. He jerked us up the line so fast we couldn't hold our breath long enough to count the mile-posts.

"Just above Tippecanoe City he swung around a curve and sighted a farmer's spring-wagon crossing the line about a mile ahead, with the rear wheels in the middle of the track, but Jake got there just in time to tear the hind end clean off that wagon, and was blowing for the

yard in Troy before the farmer realized what hit him.

A Calf Takes to the Air.

"We left Piqua and had rounded the long curve into the straightaway, when a calf loomed up ahead, caught fast in a cattle guard. I was holding onto the overhead rail, looking out the car-door, and just got a glimpse of it, when Jake cut her open so quick he nearly broke the couplings, and the next I saw of that calf it was doing a Wright Brothers' flight over into a neighboring wheat field.

"I was just beginning to wonder if there really was anything in the black-cat sign and a bad start, after all. At Lima a yardman got his hand squeezed in hooking on the new engine. We were on time, but the run to Toledo was a fast schedule, yet a grizzled old driver by the name of Steve was the man to cut it.

"Everything rolled smooth until after we left Ottawa. Jimmie and I were handling the papers in Charlie's place, and we were holding down the box recounting the morning's happenings, when Steve begun to ride the whistle right after she cleared the long curve.

Mutton Goes Up.

"Jumping to the door, we saw a great flock of sheep packed tight on the track in a long string. We were running down grade and making over fifty miles per.

"Steve saw he was too close to brake her dead before he could get through, and with all that wool bunching up and roll-

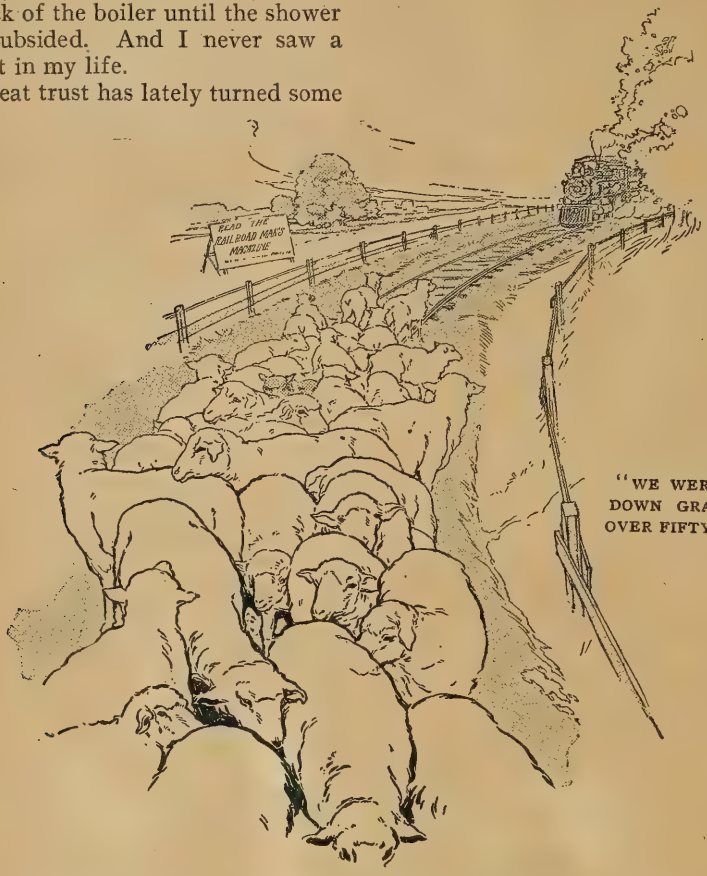
"I TOLD YOU NOT TO TAKE THE RUN OUT TO-DAY."

ing under the drivers at slow speed meant a derailed engine, so he just yanked the throttle clean back into the coal-bin, opened the sand, give her the advantage of a pulling notch or two on the bar, and ducked back of the boiler until the shower of sheep subsided. And I never saw a sight like it in my life.

"The meat trust has lately turned some remarkable tricks in raising prices, but there have been mighty few occasions when meat went up any faster or higher than it did while Steve was plowing a fifty-mile gait through that bunch of mutton. The sight that we got of it looked like a snow-storm—going up.

"When we pulled into Deshler, Steve's machine looked like a hillock out West after a bunch of cattlemen had made a raid of slaughter on a sheep range. They were piled on the pilot, on the running-board, and some on top of the boiler, and the odorous smell of scorched wool and mutton drove lamb chops and such forever from Steve's bill of fare.

"At Toledo they ran his engine over to the house for a clean-up, and gave him another for the run-back. We had a regular passenger south, and made a good run as far as Columbus Grove, where Jimmie remarked that our entertainment seemed to be over for the day; and neither one took the precaution to knock wood.



"WE WERE RUNNING DOWN GRADE, MAKING OVER FIFTY MILES PER."

"A big red cow had walked onto the track from a clump of bushes right ahead, so close to the pilot that Steve only had time to open her up wide and dodge before he struck that cow square in the middle, and a beef was never cut by any butcher into so many pieces in so short a time.

"That night we were nearing the Cincinnati terminal, when just as we left the bridge and swung into the yards the front trucks of the rear coach climbed a switch point and left the track, and we had to leave it for the wrecking-crew while we run on in.

"When a black cat crosses my right-of-way nowadays I take another track."

"Watch for Willets!"

"Ten Thousand Miles By Rail" Is the Title of His New Series.

FIRST INSTALMENT NEXT MONTH.

Forget Your Dinner-Pail, but Don't Forget This!

NEXT month we begin the fourth series of Gilson Willets's stories of railroad men and railroad life. We do not think we shall be accused of exaggeration when we say that the name of Willets is a household word among railroad men.

Not only the active readers of THE RAILROAD MAN'S MAGAZINE are familiar with his cheerful countenance and sturdy figure, but wherever two or three railroad men are gathered together in those regions, most of them have met Willets, and all of them have heard of him.

Those who have met him don't need any recommendation from us to read his stories. There is a healthy vigor about the man, an attractive good-fellowship, a fascinating personality that will compel all who know him to follow all the stories by him that they can find.

They know that Willets is a man—a man who can tell a man's story, laugh at a man's jokes, sympathize with a man's griefs. They will read his stories.

To the men who have not met Willets we would say that in this new series you have a chance to become acquainted with him in the way next best to shaking his hand. He is at his best in this series.

He has the keenest sense of a story of any man we know. He knows what to say, and he knows what to leave unsaid; and these two are the prime requirements of a good story-teller.

"TEN THOUSAND MILES BY RAIL," is a wonderful lot of new, gripping, human stories.

Next month, in the pages of THE RAILROAD MAN'S MAGAZINE,

"WATCH FOR WILLETS!"

THE OLD LOCOMOTIVE.

BY J. E. HARE.

Written for "The Railroad Man's Magazine."

SHE used to dash, with a roar and clash,
Along the gleaming steel.
She used to swirl with a clang and whirl,
And romp and race and reel.
She'd heel and swerve o'er stretch and curve,
The glory of the line.
And they said with awe, when her pace they saw,
"There goes swift 69."

She used to glow as she'd swiftly go,
With the glimmering gloss of silk.
She's assistant now to the humble cow,
And hauls the morning milk.
No more she flings, as the whistle sings,
Her smoke far down the line.
She has gone the pace and run her race—
Old worn-out 69.

There's a human side to her fallen pride,
For men are just the same.
For a day or a year they are heroes dear,
And live in the hall of fame.
But they fall behind in the constant grind,
And others cross the line.
Once our pace is hot, but we're soon forgot
Like poor old 69.

WHY WISTER WAS SHOT.

BY KATHARINE EGGLESTON.

A Reward of Money and the Love of a Beautiful Girl Hang Tremblingly in the Balance.

SAM WISTER, the Texas ranger, peered out from under his snow-covered hat brim at the whirling maelstrom of smothering whiteness that appeared to be scooped up from the prairie to join the feathery burden of the air and to twist into freezing spirals that tried to squeeze the last faint spark of life from his saddle-tired, windlashed body.

He glared at the moving whirlwind of snow. He felt as if its terrific breath must suck away his own. Then he lifted his heavy hand and clutched at the packet of papers in his pocket. Somehow a new strength that had the effect of warmth flowed through him. It was as if the papers possessed some mighty galvanic power.

They contained the death-warrant of a fellow man.

But to Sam they meant something more and different. He was struggling now, through the blizzard, to a house about five miles from Fort Worth, where Lily Menden lived and—so Sam hoped—loved him.

A big reward had been offered by relatives in England for the capture of the man who had killed a young Englishman who had been prospecting in Mexico and Texas.

The murder had occurred at San Antonio, but Pete Marsh had sent word to Sam that he would deliver the man who had committed it into his hands at three o'clock of the night which would follow the storm-mad day, but the delivery must be at Fort Worth.

Sam had started on his long ride in threatening weather early in the week. Then came the blizzard, which had driven every live thing to cover or to death besides himself. He had pushed on, buoyed up by the promise of the big reward and the hope it gave him of winning Lily Menden.

He knew he must be within a few miles of her now. But the wild swirl of the wind caught and caressed the suffocating masses of snow into long arms that rose and reached for him till he was utterly confused.

He was on the verge of delirium. The snow-madness was beginning to fire his brain with its white-hot visions of fantastic disproportions. At one moment, the dully gleaming arms that reached for him were alive. The next, he knew them to be but writhing snow-currents. But he knew, too, that a time was soon coming when he should not recognize them for what they were, when he would fling himself from his stumbling horse and welcome their embrace.

Suddenly, the dying beat of his heart quickened with an excruciating pain.

A demoniac rage seized him at the racking interruption of the comfortable numbness of mind and body that had taken possession of him.

He writhed in his saddle and stared revengefully into the white waste about him. After a long interval, as it seemed to him, an explaining report came.

He was shot!

His horse stopped and stood trembling. Then, out in front, so vague that neither man nor beast could be sure that the appearance was more than some eccentric evolution of the snow, a figure showed for an instant.

Wister gave a hoarse cry. His horse moved on. Even following a shadow was better than meekly lying down to add another to the slowly piling mounds the storm was building.

Wister felt a twinge in his hip. He put his hand on the spot. There was a warm dampness. He turned suddenly sick and fell forward.

The reins, which were twisted about the saddle-horn caught him in their loop. The horse paused as the unaccountable weight dragged heavily to one side. He waited for his rider to adjust himself. Then, when Wister did not move, the animal began again its patient plodding through the snow.

The fagged creature took heart. There, too recent to be obliterated, dragging deeply through the snow, was the track of another of its kind. If Wister had been able to notice anything, he would have known that the shadow out in front was more than a fantasy of the storm.

Mrs. Menden rose tremblingly and started toward the door when she heard the sound.

A man entered, a Mexican, to judge from his speech and complexion.

"*Señora,* it was useless. I could not get on to Fort Wort'."

He glanced quickly about the room as if to see if it had other occupants than the old lady and himself.

"It is all right," he continued as if to answer the frightened questioning in the worn, weak face. "I have shot him, with much care, in the hip."

Mrs. Menden gasped and tottered to her chair by the fireplace.

"He may get lost!" she said, seeming to vibrate between relief and fear.

"No! no!" the man assured her, his tones at once deferential and soothing, "I rode ahead. I watched till his horse had found my trail. It is slow going. The horse is spent. If he does not come, I will go for him. Do not be anxious, *señora,* it is better—"

The door from the kitchen swung open, and Lily Menden came into the room.

"*Señorita,* you see you were right. I mus' seek your hospitality yet," the Mexican exclaimed, with an ease and grace that savored of contact with a social world different from Border Texas, or even the one to which most of the Mexicans who came farther north were used.

He had scarcely finished speaking when Lily's erect head bent in intent listening.

"What is it?" Mrs. Menden asked nervously.

The Mexican shot a warning glance toward her.

"You will have other guests," he observed quietly.

Lily was scraping the rime from the window.

"It's a horse! A riderless horse!" she exclaimed.

Mrs. Menden seemed to shrivel with terror as she grasped the meaning of the words.

The Mexican started perceptibly. Then he dashed to the door and went out into the storm. A moment later, he entered dragging the inert form of a man.

Lily had been unable, through the curtain of snow, to see the figure that hung motionless on the off side of the horse.

She lent her splendid strength to carry the victim of the storm to a chair.

"It's Sam!" she cried, seeing the bloodless face of the ranger.

Her quick hands felt over his heart. It was beating. She sent the Mexican for restoratives.

Then she saw the great stain of blood on his clothing.

"He's hurt! He's wounded!" she cried wildly.

The composure of the man who stood beside her did not change.

Mrs. Menden, whose power to feel seemed to have merged into an apathy, took little account of her daughter's exclamation.

"Wounded? *Señorita,* let me examine. I am somewhat skilled."

Lily felt herself pushed gently aside

as the Mexican bent to cut away the blood-soaked cloth and look at the wound.

It was a flesh-wound, the very kind that a duelist might give when he wished merely to incapacitate his opponent.

"Not bat at all, *señorita.* Water and bandages, and I will make it right."

He spoke somewhat loudly as if he wished the half-fainting old woman to get the meaning of his words.

Lily went quickly from the room to get the dressings.

The Mexican's hand slid to Sam's pocket.

"I will take the papers, to make double-sure," he said.

The ranger stirred and opened his eyes.

The Mexican's hand slipped down to the wound as if that were his only interest.

"It does not matter," he said to Mrs. Menden. "He cannot get on to the Fort—and I will go in the morning."

"I must go!" Sam said thickly, trying to rise.

But his tired body, weak from bleeding and exposure, failed him. He sank heavily back as Lily came into the room.

"Sam!"

She ran to him. Her eager arms closed about him.

Sam knew that the question he had meant to ask was answered.

"Lily," he whispered, strengthened by his joy. "I'm going to get the man that killed that Englishman at San Antone. To-night, at three, in Fort Worth. There's a big reward! We can get married!"

The Mexican, apparently only casually interested in Sam's words, was standing by Mrs. Menden's chair. But, when she seemed about to cry out, his fingers pressed her shoulder, reminded her of the need for silence and control.

"You can't go to the Fort, Sam!" Lily cried. "Some coward shot you, and—"

"I've got to go, I tell you!" Sam persisted, almost roughly. "I've got to get the sheriff and catch that man!"

The Mexican spoke. His hand rested heavily on Mrs. Menden's shoulder.

"Then it is known who killed the Englishman?" he asked.

"No, not exactly. But Pete Marsh has got him, and he'll turn him over to me at three. That's why I've got to get there. He's hard to catch. Some one seems to keep him informed, and he slips right out from under our fingers."

Sam was breathing laboredly. As he finished, his head sank against Lily's breast.

"*Señorita,* he is too weak!" the Mexican exclaimed, lifting Sam to the lounge. "I will dress the wound. Then—I will take the paper and ride to the Fort. So you can be married, you see!"

He was busy making Sam comfortable. The eagerness with which his hands sought the papers struck Lily peculiarly.

She had grown up on the prairies, broad-minded and generous, but keen with the intuition that develops among people who must make quick deductions that lead to prompt action. Not knowing why, but instantly, she was in possession of the papers.

"When he is better we will ask him what to do," she said quietly.

The Mexican went on dressing Sam's wound with such an air of complete absorption in his task that Lily was half inclined to discredit her intuition. But she kept the papers.

"I think the man who killed the Englishman will not be caught—to-night," the Mexican remarked as he looked from Sam, sunk in deep sleep, out into the raging storm.

He took his candle and climbed up to the bedroom in the half-story above. Lily helped her mother to bed, noticing with alarm the added signs of age and weakness that each day seemed to bring.

"Bert's all right, mother," she said, consolingly. He'll turn up before long. Don't worry about him."

But the mother would not be comforted.

Lily returned to her place beside Sam. She waited for him to wake, filling the time with pictures of the future that stretched promisingly before her.

Then, the full meaning of the reward began to dawn on her. Sam had loved her a long time. She knew this with a woman's inner vision. But it was only when he had a definitely good prospect that he had told her. If he lost this reward, it would mean, at the best, a long

wait. And young, loving, eager to be his wife, she contemplated the prospect with dread.

She looked long and critically into Sam's face. Deep lines of fatigue, the deadly pallor caused by the bleeding, his uneven breathing, told her that he could not hope to get to the fort.

It was nine o'clock. The papers must be there before three. She might call the Mexican. But, even without the suspicion that would persist in her mind, she knew he stood little chance of arriving at the fort. He was too heavy for her pony, the only horse on the ranch that was so familiar with the route that he could keep his way in spite of the storm.

There was just one way to get the papers there in time.

She must go.

But her mother? For weeks, she had seemed to be in a state bordering on collapse. No word came to her from her boy; and, with the natural instinct of such natures, she had grown more and more dependent on her daughter. Lily wondered if she dared risk the ride on her account.

She looked at the man she loved. A great assurance came to her that her effort to serve him must meet with success. She kissed him softly and blushed as if he were conscious of the caress.

She saddled her pony and rode off into the storm.

At one o'clock she delivered the papers to the sheriff at Fort Worth, and explained Sam's condition.

No urging would detain her. At five, her brave little mustang was back in the shed, and she was shaking the snow from her clothes before the fireplace at home.

"Oh, Sam!" she whispered, kneeling beside him. "It's all right!"

She leaned her head against his shoulder. And morning found her there—her body relaxed and resting after its long trial.

The Mexican was looking down at her with a strange look in his brown eyes when she suddenly awakened.

"*Señorita!* You love him!" he said gently. "I have known another woman to love—so she die!"

Lily nodded. She could understand that.

Sam moved and groaned. Then he awakened. His eyes rested on Lily. As if she suggested it, he lifted his hand to feel for his papers.

"Lily, have you my papers?" he cried, as he discovered their loss.

Mrs. Menden was just coming into the room. She paused at Sam's question, and the Mexican turned quickly from gazing into the fire.

"They're at Fort Worth, Sam. The sheriff has them. I took them. By now, the man is caught!" Lily answered with happy pride thrilling in her voice.

Suddenly, her mother darted forward as if to strike her.

"You have killed your brother!" she shrieked, falling to the floor.

"What does she mean?" Lily asked hoarsely of Sam.

But Sam could only look from mother to daughter in complete confusion.

"My boy! My baby!" the stricken mother sobbed.

"Was Bert the—" Lily began. Then the whole terrible truth seemed to come to her and, with it, a poignant realization of what her night ride meant.

The Mexican watched the growing terror and the agony that looked from her wide eyes, then turned away.

"My God! I have killed Bert!" she whispered through stiffening lips.

Then Sam's part in the affair darted through her mind to add a new misery.

"Sam! You—you were going to capture my brother, to get the reward—"

But Sam interrupted her with convincing earnestness.

"I didn't know. None of us down there knew. Pete Marsh just promised to give us the man. He didn't mention a name."

"Then, perhaps, Bert didn't do it!" Lily cried.

"It was a young fellow. Nobody knew him down there. He just dropped into a card-room, won a lot from the Englishman, and they got into a fight. About three hours after, they found the Englishman dead in the street. They thought the boy done it. Some one knew where he bunked and, as they were all spoilin' for some excitement, they got a rope and went after him. But some one got to him first. He had lit out, and

he's been getting away ever since. I hope, if it's Bert, he'll get out of the country!"

Lily's cry of despair made the Mexican start and clench his hands till the knuckles showed whitely in contrast to the brown skin.

"Get out of the country? The sheriff has him now! He'll be hung!"

The door burst open as some one hurled himself against it. In the blinding sweep of snow, they all turned to see a man's figure dimly discernible.

The Mexican slammed the door shut. Mrs. Menden lifted her head and stared at the visitor for an instant.

"Bertie! Bertie!" she cried, her weak voice breaking with the weight of joy it expressed.

"Mother!"

The boy lifted the little figure and hugged her as if nothing could ever tear his arms away.

"Bert, is it you?" Lily whispered, lifted so suddenly from the depths of grief that she could not believe in the joy.

"I'm here, at last, thank God!" the boy cried fervently. "I suspected old Pete. He's fond of money, and—"

The color that had come into Lily's face left it.

"Bert! Be still! Sam's here!" she cautioned.

The boy lifted his head from his mother's shoulder, stared for a second at the ranger, then glanced at the door. A hunted look came into his eyes. He crouched as if he meant to make a dash for freedom.

He straightened up and faced Sam bravely.

"I didn't do it, Sam! But I can't prove it. I don't know any more about that Englishman than you do, except I know I never saw him after we had that fight. I didn't even know he was dead till some one told me they were coming to hang me for killing him!

"I had to light out. They wouldn't wait to hear me. They wouldn't have believed, I guess, just like Pete wouldn't. He kept asking to see the pearl ring I killed the Englishman for. When they get the man that did it, he'll have that ring. I haven't!"

The boy's words rang true. Sam recognized the duty that confronted him. He must arrest him and take him to San Antonio.

"You believe him, don't you, Sam?" Lily asked, as his silence continued.

"Yes, I believe him," he said slowly. "But I'm not the judge."

"You—you don't mean that you're going to take him down there! Down among the San Antone bad men! They wouldn't wait to find out before! They won't now! They'd hang him first—and find out he's innocent after!"

Sam knew that doing his duty meant one thing. He would lose the girl he loved. And not doing it meant expulsion from the rangers and being branded as irresponsible and cowardly.

He was silent as the two alternatives presented themselves to him.

Bert eyed him narrowly; then, appreciating the position in which the ranger was placed, he said firmly:

"All right, Sam. I see how you're fixed. I'll go with you—and take what comes."

"Sam, don't take him! I can't bear it!"

Mrs. Menden sank at Sam's feet. It seemed to him he heard the mother-heart break as she spoke.

"It'll kill her!" Lily sobbed, lifting the fainting woman.

"What can we do?" Bert asked, his boyish face pale and his eyes wide with fear that showed he had forgotten his own extremity in the misery of his mother and sister.

In the accumulating strain of the moment, no one noticed the Mexican. He had stood perfectly still; only his opening and clenching his hands, held behind him, betrayed his share in the excitement. Mrs. Menden moaned as if in physical torture.

His lips drew into straight, thin lines as if he forcefully suppressed a desire to speak.

Lily turned her pleading, agonized face toward Sam.

The Mexican caught the look. He shrugged his shoulders slightly and said:

"*Señor* ranger, you will take me to San Antone. I killed the Englishman."

They all looked at him. Bert studied his face as if it were vaguely familiar.

"Why! You're the man who warned me!" he exclaimed.

"Yes, I warned you. I had no thought that what I did would be fastened on you. I felt I must keep you from suffering for my deed. It is to warn you again that I came from San Antone. They wait there for the murderer. Old Pete sold you out. I came to help you escape. But the blizzard caught me.

"I am but a small way in advance of the ranger. I come here and tell your mother to take care for you. And I shot the ranger to make sure the word would not reach Fort Wort' that you are there before I can get to warn you. But your sister is brave. She take the paper. So I must tell."

They were staring at the calm man almost unbelievingly. It seemed impossible to associate him with the crime he confessed.

"Why did you kill the Englishman?" Sam asked.

The Mexican spoke to the ranger with great formality.

"*Señor,* I have in my coat something that will tell you. I will get it."

He crossed the room, opened the stairway-door and disappeared.

Time passed rapidly as they all questioned Bert. Then, it occurred to Sam that his prisoner was a long time gone.

"He must be making whatever he's going to show me," Sam said.

Bert opened the stairway-door. A small packet dropped from its place on the latch.

Bert handed it to the ranger.

He opened it. A ring fell from the paper.

"It's a pearl ring!" Bert cried.

"It's a woman's ring!" Lily exclaimed.

"He killed the Englishman—on her account," Sam said.

Then he tried to rise.

"I'd like to know where he is!" he went on, sinking back helplessly.

But he never did.

The Mexican was gone. And the reward.

But the ranger married Lily before his wound was healed.

FOR THE MAIL-CLERK'S SAFETY.

The Missouri Pacific-Iron Mountain System Puts on Heavy Steel Cars of a New Pattern.

MOVED by the appeals of the railway mail-clerks, who assert that they are the most likely to injury on a wrecked train, because the last to demand and receive adequate protection, the Missouri Pacific-Iron Mountain system has put all-steel mail-cars on its fast passenger trains between St. Louis and Kansas City and St. Louis and Little Rock and Texas. Statistics show that one of every eighteen persons killed or injured in railroad wrecks in the United States last year was a mail-clerk.

The cars are entirely new, of a type designed by General Manager A. W. Sullivan, of the Missouri Pacific, and are said to be the first of their kind in use west of the Mississippi River.

These new cars were built by the American Car and Foundry Company at its St. Charles plant. They are sixty feet long inside. The under frame is made of heavy "I" beams and channel irons, with transverse steel-plate diaphragms to which is riveted a steel floor.

On the top of the steel floor is laid a heavy course of asbestos material for insulation, and this in turn is covered with a standard wood floor for the comfort of the mail-clerks.

The steel side walls are faced with a hair-felt and asbestos insulating material, which, together with the dead-air spaces between the outer and the inside walls throughout the sides and roof of the car, affords ample means for the prevention of radiation.

The car is heated by means of six sets of steam-pipe coils, which are fed with steam from the locomotive. The ends of the car are built up with heavy channel irons and "I" beams, covered with steel plates, producing a most excellent type of anti-telescoping construction.

Their strength surpasses that of all steel cars heretofore built. It is anticipated that this style of mail-car will be a source of safety to the remainder of the train in case of derailments or accidents. Wooden mail-cars are generally the first to catch fire in a wreck, thus destroying the rest of the train.

Around the Order-Book.

BY C. F. CARTER.

Some Good Ones On Panhandle Dan, Shang Owens, Blue-Nosed Barry, Truthful Sam Swandibble, Handsome Harrigan, and Old Pop Hickenlooper.

WHEN Panhandle Dan went back to the desk to report that the 251's wedges needed setting up, he found Shang Owens, Blue-Nosed Barry, and Truthful Sam Swandibble examining the order-book and discussing in earnest tones an entry therein, while Pete Peterson, the mechanic, was standing with one hand resting on the side rod of the 347, gazing at the end of her back damper with that air of profound deliberation which can only be attained by a roundhouse mechanic, and listening to the discussion.

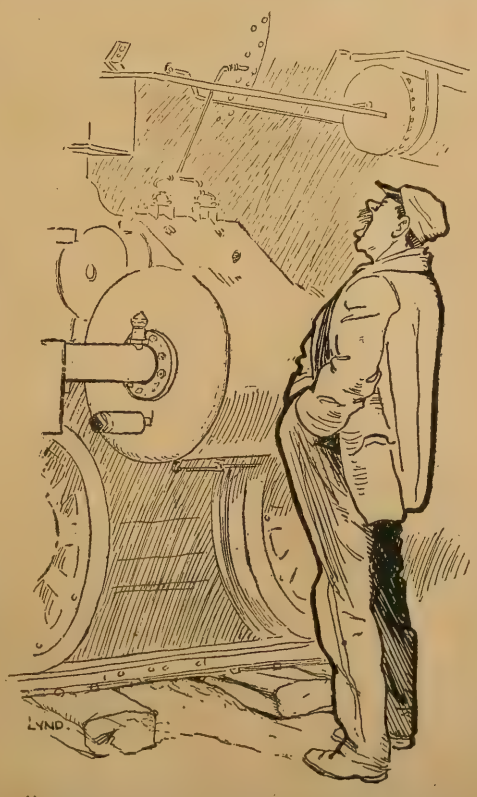
"What you fellers doin' with that order-book?" demanded Panhandle Dan. "There ain't no pictures in it, and we all know you can't read."

"Handsome Harrigan has reported the 248 for the back shop at last," replied Blue-Nosed Barry. "He told me last night he'd made an even hundred thousand miles with her without havin' her tires turned down, and he rather thinks he's entitled to wear the belt. Harrigan is a mighty good runner, anyhow."

"I could mention some men on this division, if I wanted to, that can't run an engine forty thousand miles before she has double flanges on 'er two inches deep," declared Shang Owens.

"It's all in the way he's got his valves set," put in Truthful Sam. "Harrigan sets his valves himself. He says—"

"Say! You and Harrigan give me a crimp in the epigastrium with your everlastin' twaddle about valve settin'," interrupted Panhandle Dan. "If I had a blind boy who couldn't set a valve on a dark night with one hand tied, and do a better job than has been turned out on this division recently I'd trade him for



"THAT MAN USED TO GO OUT EVERY NIGHT JUST BEFORE HE TURNED IN, AND SING 'ROCK-A-BY, BABY, IN THE TREE-TOP' TO HIS OLD MILL."

"SLAMMED HIM BACK AGAINST THE TWO BRAKEMEN, BIFF!"

a stuffed club and beat my brains out with it."

"Ay tank yo' bater geev ope yo' run queeck an' take a yob as mechanic, Meester Murphy, if yo' are so handy about valve-satein'!" exclaimed Pete Peterson with great asperity. "Anny man w'at's crippled in de hade can run an engine; but it takes brains to keep von in order, especially engines dat are handled like de two-feefty-von."

"What I say about valve-settin' goes, Pete," replied Panhandle Dan. "And, even at that, the 251 has never had her valves set right since I've had her.

Pretty Husky Valves.

"Say! Do you know what you did to them valves the last time you monkeyed with them, Pete? I'll tell you what you did: you gave her so much lead that the valves were about three revolutions ahead of the piston all the time, and a heap more than that goin' down-hill.

"I certainly did have a fierce time gettin' over the road at all with the old mill. Goin' down the Oakland hill with the limited, my air-pump gave out, the air all leaked out, and I couldn't hold 'em. I had to let 'em roll. By the time we got to the bottom of that four-mile toboggan-slide them valves had increased her lead so much that it would have taken two men to see us go by, one to say 'Here she comes!' and the other to say 'There she goes!'

"Just to give you an idea how fast we were goin', I whistled for the station as usual. We ran by about six train lengths on account of havin' to make a hand-stop, backed up, made the station-stop, fixed the air-pump, and pulled out, and had got as far as the water-tank before the sound of the whistle got to Oakland.

"That reminds me of Old Bill Gallagher's ride down Cimarron Hill," said Blue-Nosed Barry. "The last summer Old Bill was on the Denver and Rio Grande he was pullin' Old Pop Hickenlooper on a work-train. There was a pair of cranks for you. Each one was so darned cranky you couldn't live in the same State with him.

"Old Bill" and "Old Pop."

"Old Bill's fireman used to duck his head every time he stooped over to put in a fire from force of habit, he was so used to havin' Old Bill kick at him. And whenever the brakemen wanted to know anything about their work, they used to drop Old Pop Hickenlooper a postal-card.

"Old Bill was perfectly dotty about his engine. He was eternally fussing about the old mill. He couldn't run her half a mile without stoppin' to oil round. He would steal oil for her from the other engines, besides using about three times as much as any other man used that he

got on requisition. He wouldn't crowd her over eight miles an hour for fear of heating her brasses, and he simply wouldn't pull a full train.

"Him and the fireman had a regular Kilkenny-cat fight one day because Old Bill insisted on the fireman gettin' down and pushin' to help the old mill over a little rise. When he was out on the road with the work-train that man actually used to go out every night just before he turned in and sing 'Rock-a-by, Baby, in the Tree-top' to his old mill.

"Pop Hickenlooper's principal bug was a feather bed that he carried in the caboose. He slept nineteen hours of the twenty-four and left the brakemen to run the train, so, you see, he was in a position to appreciate a soft bed—which he did.

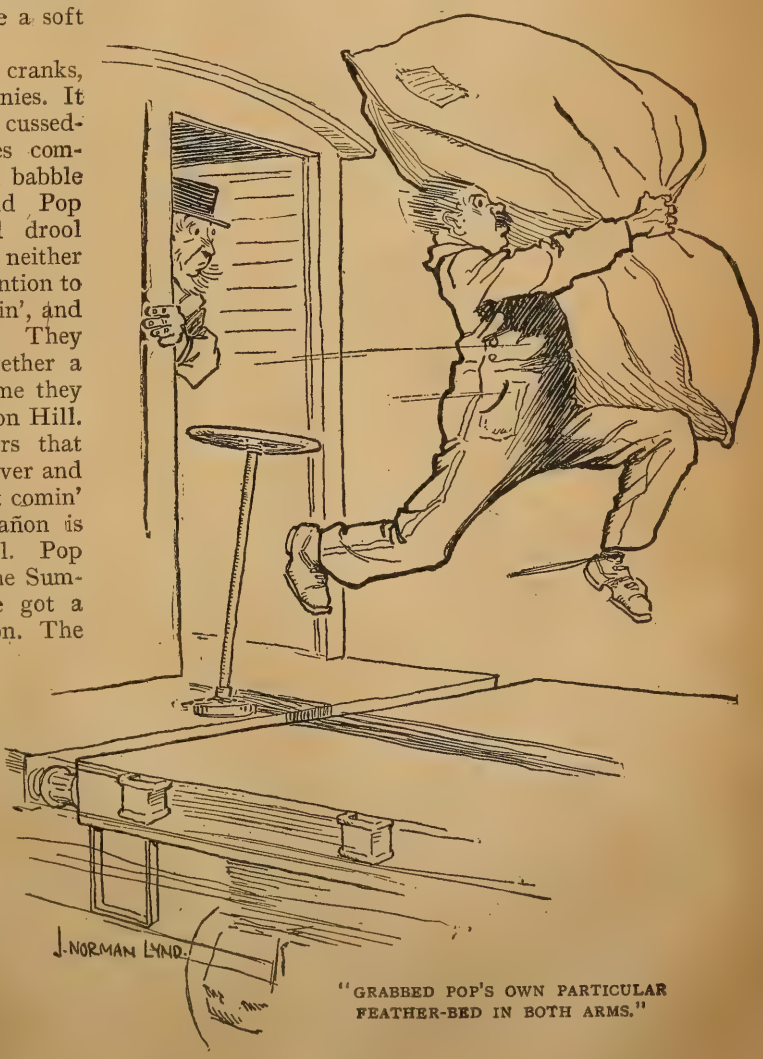
"Them two old cranks, strange to say, were cronies. It must have been because cussedness, like misery, likes company. Old Bill would babble about his engine, and Pop Hickenlooper would drool about his feather-bed, neither payin' the slightest attention to what the other was sayin', and so they got along fine. They certainly did flock together a whole lot up to the time they came down the Cimarron Hill.

"Any of you fellers that have been over the Denver and Rio Grande knows that comin' down the Cimarron cañon is like fallin' down a well. Pop Hickenlooper was at the Summit one day when he got a 'can have' to Gunnison. The orders didn't allow any time for pickin' flowers, so they started right down the cañon, with Old Bill grumblin' as usual because his darling old mill would have to turn her wheels so fast.

"He had a string of a dozen empty flats, with a hundred Italian shovelers for passengers. Old Bill worked steam a little till he'd got 'em a rollin' nicely; then he shut off, stretched himself out on the seat-box, and prepared for a comfortable ride, expectin', of course, that the brakemen would do the rest.

"This was in the good old days of the Armstrong brake, you see. He didn't take much notice until he saw a juniper-bush on the rocks close beside the track bend violently over in the direction he was goin', as no bush ever does except in a violent wind. Then he yelped for brakes.

"Did anybody ever see a flat-car anywhere that ever had a brake in good order? I never did. The only response to



"GRABBED POP'S OWN PARTICULAR FEATHER-BED IN BOTH ARMS."

Bill's call for brakes was an extra spurt as them ornery flats dropped down over a little pitch. Old Bill let out another yelp and looked back to see why it wasn't responded to.

"He saw the two brakemen on the caboose platform, both swingin' on the caboose brake, the only one on the whole train that would hold two ounces, with Pop Hickenlooper standin' in the door, watchin' 'em with his eyes stickin' out till you could have used 'em for hat-pegs.

"By this time they were goin' so fast that the wind picked up one of the lightweight Italians and slammed him back against the two brakemen, biff! They all fell off. Old Bill kept yelpin' for brakes and givin' her sand, while the fireman made the greatest effort of his life with the tank-brake. Another Italian was picked up by the wind and carried off, followed by another and another until the train was depopulated.

"By this time the train was moving so swift that it cracked like the snapper on a whip every time it went around a reverse curve. The wheels were spinning so fast that the humming they made was keyed up to a pitch as shrill as the song of a mosquito. In their wake was an odor of scorching wood, caused by the friction on them old flats.

"They probably would have busted out into a blaze if it hadn't been for the creek. The road followed every bend of the creek within three feet of the water, just like all mountain roads do. That train was goin' so fast that the suction just picked all the water up bodily and eddied it around over them flats, keepin' 'em thoroughly drenched, and so preventin' a fire.

Violating Rule 20.

"About this time the fireman gave up his endeavors with the tank-brake, lit a cigarette, fished up his time-card out of his seat-box, read the reverse side till he found rule 20. He put his thumb under the place and held it so Bill could read:

"'Work-trains must not exceed fifteen miles an hour.'

"That made Old Bill so mad he couldn't speak. He sputtered, but only got purple in the face. I guess the blood must have rushed to his head so hard on account of the passion he was in that the extra weight kind o' threw the machine off her balance. Anyway, when she struck the next curve she trembled a bit, then hopped down off the rails, and went bumpety-bump along on the ties.

"Old Bill was frantic. He had a photograph in his mind's eye of his pet toppling over on the cruel rocks and gettin' all mussed up. He jumped down on the deck, clenched his hands, and yelled.

A Bed to Fall On.

"Then he gave the most marvelous exhibition of presence of mind that has been witnessed since railroads were invented.

"Quicker than a cat he whirled, went up over the coal in the tank on all fours, sprinted back over them flats, bowled over Pop Hickenlooper, who was still standin' in the door with his eyes bulgin' at the scenery; tore madly into the caboose, grabbed Pop's own particular feather-bed in both arms, bulged through the door with it, and sprinted ahead to where he thought the engine was due to topple over.

"There he kicked away the rocks, spread that feather-bed down, and smoothed it off nicely. He had barely time to get things ready when up comes his pet, bumpin' over the ties, balances on two wheels a minute, and then lays gently down on that feather-bed like a chicken goin' to roost.

"Everything would have been lovely if one of the keys in her side rod hadn't caught in the bed-tick and tore it so that about a handful of feathers oozed out. Old Bill was willing to apologize to Pop Hickenlooper about them feathers, and do what he could to square things, until he found that a pin Pop had used to fasten piller-shams to the bed-tick, and had carelessly left stickin' in the tick, had scratched the side of the cab.

"He never forgave Pop for his recklessness about that pin; and Pop, on his part, carried murder in his heart toward Old Bill on account of the shameful way he had used his feather-bed."

"Now, then, if you gents'll kindly disperse a little," said Panhandle Dan briskly, "I'd like to take my pen in hand and indite a few choice thoughts in that there order-book."

DAD ALLEN LETS 'EM ROLL.

BY E. E. JENNINGS.

Force of Habit Made Him Forget His Old Teapot Didn't Carry Anything But Hand-Brakes.

THE usual crowd had gathered in the C. and St. J. roundhouse at Craigville. I should say the usual "jolly" crowd, for pay-day had come round once more, and one and all, from wiper to passenger engineer, were killing time in various ways while waiting the arrival of the band-wagon.

Several yarns had been spun, and a few arguments had taken place, when Dad Allen, veteran engineer of the line, suddenly leaned forward in his chair and knocked the ashes out of his pipe on the heel of his boot. This was always a sure sign that Dad was about due to open up, and invariably caused the same condition of silence and attention that are seen in court when the judge raps for order; for Dad was a rare entertainer. No engineer on the system had more close calls.

The old man reached in his pocket, produced his knife and tobacco, started to fill up his corn-cob again, and then began:

"Listening to you boys kick because all freight-cars ain't equipped with air-brakes yet, reminds me of a little mix-up I once had on the Kilmorna Hill. It wasn't because the cars weren't all equipped for air, but I'll tell you about it, just to show you what force of habit will do for a man at times.

"It was in the fall of 1887 that this happened, and it was in the spring of 1888 that I got my job back, after various officials had failed to discover the real reason why the 'Chicago Bullet' ran away on the Kilmorna Hill.

"All the better class of engines carried Westinghouse those days, but we had a few little dinkies that did yard-work and local business that the company did not think it worth while fitting up. When I came down to the roundhouse at Melton that morning, and found out that my engine, the 446, had been taken to double-head the snow-plow, I expressed my opinion of the locomotive foreman and other officials in no uncertain language.

"Some of the boys say there are blue streaks on the window-glass yet down in the Melton roundhouse, where my breath frosted the pane, but that must have occurred when I found out that I had to take the 171 out on the 'Bullet.'

"I knew the 171, and so did every man on the division, a little teapot that was pulled off the main line on account of poor steaming qualities, and I could see my finish trying to make time with a mill like that on the head-end of a beef-train. But there was nothing else in the roundhouse, and the superintendent's orders read: 'Start 55 out on time with engine 171.'

"Well, we got the yard-engine to give

us a shove out of Melton ward, and managed to get away on the dot; and I was beginning to hope that we would get a clear run over the division when, as we were nearing Lyndon, I saw the order-board out against me. I said a few things that wouldn't look well in print as I whistled for brakes, but I said more when we pulled up and got orders to meet extra 42 at Sherwood, that little flag-station at the foot of the Kilmorna Hill.

"I had figured on letting her go her own pace on that grade, but I knew that I could never let her out with twenty-two cars of dressed beef behind her and stop at Sherwood; however, when we hit the top of the hill, I thought that I would let her go for half a mile and then give her the air, which would be safe enough, as I had done it dozens of times with the 446; and right here is where force of habit caused me to make the biggest bull I ever made on an engine.

"When I thought it was about time to slow up I reached for the handle of the air-controller, only to discover that I had forgotten that there was no air on this engine. There we were, splitting the wind at about fifty per, with nothing but hand-brakes behind us and two green brakemen in the caboose.

"I whistled brakes, threw her over, and gave her the sand, but it didn't do much good. I looked back over the train, and could see one man crawling over the running-board of the car ahead of the dog-house on his hands and knees, just about ready to grab anything with his teeth that might help him to hold on, while the other 'Jasper' seemed to be afraid the cupola might blow off the caboose, for he was sure holding it on tight.

"Thinks I to myself, we're in a deuce of a fix if Stewart isn't in the clear at Sherwood, for by this time even air wouldn't have held us up. When we rounded the curve near the west semaphore, I could see Stewart pulling in the siding at the east end switch, and I knew for certain that he wouldn't get in clear in time.

"I whistled as long as I dared stay with her, and then I yelled to my fireman, 'Come on, son!' and we both lit out for the deep snow, which, thanks be, was plentiful.

"The 171 side-wiped the fifth car ahead of Stewart's caboose, but by good luck they had heard us whistling, and had time to hike out of the caboose and over the fence clear of the pile-up.

"It took the auxiliary three days to clear up the mess; but it took the officials over three months trying to clear up the cause, which they didn't, or I wouldn't be here with you fellows now. They put it down at last to bad rail, small engine, and heavy train, but it cost me three months' pay to convince them to this effect and get reinstated; but, boys, to this day I can't see how in creation I came to forget that I wasn't carrying air right after stopping at Lyndon with hand-brakes.

"It just goes to show what force of—Say, boys, there's the band-wagon pulling in on track 7. Come on, and get in ahead of Murphy and the bridge-gang."

THE SMALLEST ENGINE.

TINY TIM is the name of the smallest engine in the world. It is made of gold and steel, and is so small that a common housefly seems large in comparison. It weighs just four grains complete, which is the weight of an ordinary match. It takes over 100 such engines to weigh one ounce, almost 2,000 to weigh a pound, and more than 3,000,000 to weigh a ton.

The engine-bed and stand are of gold. The shaft runs in hardened and ground steel bearings inserted in the gold bed. These bearings are counter-bored from the inside to form a self-oiling bearing. The fly-wheel has a steel center and arms, with a gold rim, and the complete wheel weighs one grain. The cylinder is of steel, with octagonal base, highly polished.

The stroke is 1-32 of an inch bore, 3-100 of an inch. Seventeen pieces are used in the construction of this engine.

The speed of the engine is 6,000 revolutions per minute. When running 100 per second no motion is visible to the eye, but it makes a noise like the noise of a mosquito. The horse-power is 1-489,000 of one horse-power. Compressed air is used to run it; and it may be of interest to note that the amount required to make it hum can easily be borne on the eyeball without winking.

WITHOUT LIGHTS.

BY J. AUBREY TYSON,

Author of "The Man of Straw," "A Railway Pizarro," "The Man Who Lost Himself," etc.

A Woman's Hinted Suspicion Paralyzes a Strong Man's Purpose.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE waits upon the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter of introduction from his father, who, in the old days, was engineer on the engine Warrington fired. It is understood that when Fred has completed his college and Altoona course, Warrington will place him. He now finds that he is unable to do so, his own position being in considerable doubt. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son, though the matter is still kept quiet. Warrington, senior, is suspicious of the motives of an Englishman named Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds, and of returning them secretly to the safe, to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night, but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, thinking over the situation, when he meets a man who proves to be the discharged coachman of the Warringtons. He is very loyal to Miss Warrington, and this has resulted in his discharge. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Other men arrive, and Erskine gathers that it is their intention to keep a rendezvous with young Warrington and then kill him. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore, he is startled by a piercing shriek.

CHAPTER IX.

An Untold Story.

FOR only a moment did Fred Erskine hesitate. The shriek that had rung in his ears scarcely had died away when the Altoona man set off at full speed in the direction of the sea-wall he had left behind him less than a minute before.

Arriving at the wall, he leaned over and listened. From a point on the beach several paces to his right came the sounds of sharply spoken words, which were too quietly uttered to be intelligible to him. These were followed by a shuffling of feet, a splashing of water, and the quick regular clicking of metal oar-locks.

"McGrane!" Erskine called.

To this call there was no reply. Then Erskine cried the coachman's name again. This time there came to his ears a low groan, closely followed by a sturdily muttered curse.

"Is that you, McGrane?" demanded Erskine, as he prepared to vault over the wall.

"Yes — yes! In God's name, come quick."

A moment later Erskine was on the beach. The sounds of the oar-locks were growing fainter, and as the young man listened these were the only sounds he heard.

"Where are you, Barney?" he called,

after he had vainly attempted to make out the figure of the coachman in the darkness.

"Here, sir—here," came the voice of McGrane, and as the coachman spoke, Erskine heard the sound of shifting stones.

"What has happened, Barney?" demanded Erskine anxiously.

"Oh, the sneakin', murderin' devils!" exclaimed the coachman breathlessly. "Just as I was finishin' off the blackguard with the knife another knocked me—Barney McGrane—off my pins for the first time in my life. Oh, when I get my hands on—oh, sir, when—but Mr. Joseph—what's become of Mr. Joseph?"

Erskine raised his voice. "Warrington!" he called.

"In Heaven's name, what's this?"

In the darkness the coachman had stumbled upon the figure of a man who was lying on the beach.

"By all that's holy, sir, it's—it's Mr. Joseph!" exclaimed McGrane.

A moment later Erskine and the coachman were kneeling beside the prostrate form of young Warrington. As Erskine groped for the wrist of the stricken man, Joe Warrington's fingers closed feebly over his hand. The fingers seemed strangely stiff and chill, and Erskine shuddered.

"Are you injured, Mr. Warrington?" Erskine asked anxiously.

"Yes—yes—they've finished me," the other answered weakly.

Erskine started to rise. "Come, McGrane, let's get him over to the house," he said.

The grasp of the prostrate man grew tighter. "No—no—don't go," he murmured. "They've knifed me, and I'm done. There is no time to take me anywhere, and—"

"Who assaulted you?" Erskine asked. "It was one of Montresor's crowd, I know, but—"

"It was too dark to see," Joe Warrington replied, "but there is no time now to talk of that. You have said that you are working in my father's interest and mine, and I believe what you have said to me. You know Montresor had the bonds, and you say that he—has he lost them?"

"No. He has sent them somewhere by express—to Tacoma, I believe. I must get after them to-night. They are said to be in some kind of a machine-box. Do you know what is meant by that?"

"May God forgive me—yes," muttered the dying man. "It is a box which contained an Anxell typewriting machine—a wooden box, marked with the name of the manufacturer—a box which stood for several days in the office of the treasurer of the company. It contained the missing bonds at the time they were delivered to Montresor."

"Do you know to whom the box is addressed at Tacoma?"

"I did not know that it was to be delivered to any one in Tacoma."

There was a pause, then Erskine asked: "And is this all you have to tell me?"

Joe coughed weakly and a little groan escaped his lips.

Erskine leaned lower.

"What are the names of his confederates?" he queried.

"By stealth—by stealth, you said," the dying man whispered, and the fingers that held Erskine's hand tightened their grasp. "If you do this—Louise—Louise—"

He stopped. "Yes, yes, but—" Erskine began.

A faint choking sound came from Joe's throat.

"If you do this—" he repeated, but could get no further.

"Shall I get Miss Warrington?" asked McGrane.

"She is not at home," Erskine reminded him. "But, perhaps—"

"Stop!" whispered young Warrington. "I must tell—you must remember—twenty-six eighty-nine—fifth proverbs—twenty-two—twenty-three—nineteen thousand and forty-seven."

For a moment Erskine fancied that the whispering man was speaking incoherently, then a new thought struck him, and, starting violently, he said:

"Again!"

Deliberately, but more faintly than before, Joseph Warrington whispered: "Twenty-six eighty-nine—last two of the fifth—nineteen thousand and forty-seven."

Slowly and distinctly Erskine repeated the words.

"Yes—yes—remember," sighed the stricken man.

Perspiration now was standing in beads on Erskine's forehead as he asked: "But your — Montresor's confederate? Tell me?"

He paused for an answer, but Warrington was silent. "Your sister is not—" Erskine began, but stopped.

"Ah, Louise—poor Louise!"

"You do not mean that your sister—"

Warrington tightened his grip on Erskine's hand.

"She must not know," the dying man murmured hoarsely. "You have said that by stealth—by stealth—my honor and my father's—"

He stiffened suddenly and the hand that was holding Erskine's relaxed its grasp and fell to the stony beach on which he lay.

"Shall I get a doctor, sir?" Barney asked.

"It's too late now," Erskine answered, like a man in a dream.

"He isn't dead?" exclaimed McGrane, in horrified accents.

"He's dead," said Erskine, rising.

"Then, sir, we must take him to the house."

"No. The body must lie here until it is viewed by the coroner."

"But his father—we must tell Mr. Warrington what has happened."

"No. The body will be identified easily enough, and his father will be informed. It is best that we do nothing further in regard to this matter to-night."

An exclamation of amazement escaped the coachman's lips.

"And you'd let him—him as was Mr. Andrew Warrington's son—lie for hours like a dead dog out here beside the lake!" McGrane said angrily.

"No further harm can come to him now," Erskine answered gravely.

"And Montresor — Montresor, who murdered him?" demanded the coachman. "Are you going to let Montresor get a better start on the police than he's got already?"

"The police must not get Montresor until after we get something Montresor has had in his possession. You have heard me make a promise to the man who came to his death at Montresor's hands.

"That promise must be kept; but it cannot be kept if Montresor is arrested, or if you and I are compelled to remain in Chicago to-morrow to appear as witnesses in this case. In the dead man's interest, and in his father's as well, we have another account to square with Montresor. In order to do this, we must take a train for the West to-night."

"We are going after Montresor?"

"If it is possible, we must go before him to the place at which we are to call him to account for injuries which members of the Warrington family have suffered at his hands."

"But I don't understand, sir, how—"

"It is unnecessary that you should understand anything more than that Montresor is planning to obtain possession of something which we must get—something which was responsible for the death of Joseph Warrington to-night. I will lead the way, but you must remember that when you entered my employ a few minutes ago, you promised that you would ask no questions.

"I, too, have given a similar promise to some one else. There is a hard fight ahead of us, Barney, and some of it is going to be in the dark, but we must stand together and be able to trust each other absolutely."

"We've got to fight, then, without knowin' what it is we're fightin' for?"

"Yes, Barney. Both of us are under sealed orders."

The coachman hesitated. "Well, sir, if it's a fight we're goin' into, and the feller we have to fight is Montresor, Barney McGrane is the man for the work, and he won't be pesterin' you with questions," he said.

"Come, then," Erskine directed with a ring of impatience in his voice.

Just as the two men were in the act of crossing Lake Shore Drive, a coupé, swiftly rounding a corner below them, headed northward, and, as it did so, the driver reined in his horse in a manner that caused it to proceed at a slow canter. Erskine and his companion were in the middle of the roadway when the vehicle passed them.

Erskine drew back suddenly, and a low, incoherent expression fell from the lips of McGrane. The occupant of the coupé

had been recognized by both. It was Louise Warrington!

CHAPTER X.

A Crossing of Trails.

"WAPITI FALLS, the next stop—next stop, Wapiti Falls!"

As this call rang through the train, Barney McGrane saw a faintly perceptible expression of grimness settle in the eyes and around the lips of his new employer, who for the last two hours had appeared to be absorbed in the perusal of a paper novel.

A moment later the glances of the two men met. Erskine smiled slightly, laid his book aside, thrust his hands into his pockets, stretched himself, and looked out of the window.

Barney McGrane never had deluded himself with the idea that he was adept at mind-reading, and if he had, his lack of success in studying the features of Erskine, with whom he had been traveling for the greater part of two days, might well have discouraged him. The face of the Altoona man had been like a mask; but in the eyes of this dogged enemy of Montresor's there was a glint that never died away, and it pleased the Irishman to see it there.

During the greater part of this long journey, Erskine had had little to say. When he did speak, however, his words and manner were cheerful enough; but not once had he spoken of the quest in which he was engaged, or of the death of Joseph Warrington.

To the speculative McGrane, only one thing was clear. The ticket he carried had given him to understand that their destination was Wapiti Falls, and he remembered that while he and Erskine had stood together beside Lake Michigan, just prior to the appearance of Joseph Warrington, he had heard Montresor say to the man he called Slevin something of this town which the train was now approaching. He had failed, however, to grasp the significance of the speech.

As Erskine looked out of the window, a feeling of apprehension suddenly began to steal over him. Was it not possible, after all, that he had been following a false trail? In the darkness, on the beach, he had heard Montresor say to Slevin that the Inter-State had "the paper," and that it transferred "to the Dale" at Wapiti Falls. He knew that the Inter-State and the Dale were express companies. But was "the paper" that had been mentioned something else than the missing bonds?

This doubt was sufficiently disquieting of itself, but there was another that harassed him. If "the paper" should consist of the bonds he sought, would it be possible for him to obtain possession of them by means of the desperate plan that he had formulated?

Of the one thousand dollars which he had received from Andrew Warrington he had spent less than one hundred and fifty, and the remainder was now in a wallet in an inside pocket of his vest. Large as this sum would have seemed to him only a few days before, he wondered whether it would suffice for the work that had been cut out for him.

The Altoona man's thoughts were not altogether occupied with the task that confronted him, however. After leaving Chicago he had been haunted by a fear that he had done wrong in failing to report to Andrew Warrington concerning the manner in which his son had met his death. Despite Warrington's injunction to refrain from offering any report on the progress he was making in his quest, Erskine felt that he had taken the general manager a little too literally.

It was plain that Warrington was convinced that his son was indeed guilty of the act with which he had been charged, and that, though harboring this suspicion, he was determined that no evidence of his son's complicity in the affair should be submitted to him by the man to whom he had assigned the task of recovering the bonds. It was also clear that the elder Warrington suspected that his son had been in some sort of a conspiracy with Montresor.

But did he know enough of the nature of this conspiracy to lead him to suspect that Montresor had designs on Joseph's life? By this time the general manager knew that his son had been slain, and it was only natural that he should do all in his power to aid the police in their search for his murderer.

Oftentimes, as Erskine asked himself these questions, he would become con-

scious of a sudden sinking feeling that brought with it some of the sensations of a nightmare, and at these times his thoughts were of Louise Warrington. Was Andrew Warrington's daughter also in league with Montresor? Did she now suspect that the man into whose hands she had delivered Erskine in Lincoln Park was no other than the slayer of her brother? The very thought was monstrous! And yet the fingers of accusing circumstances pointed directly to her.

Hour after hour the memory of this extraordinary young woman haunted him. Beautiful as she had been when she had first appeared to him in her father's house, it was not in this aspect that she kept reappearing to his fancy.

He remembered best the dark profile beside him in the carriage, and the white face he had seen peering out at him from the coupé window while he and McGrane had been crossing the Lake Shore Drive together, near the Warrington house, a few minutes after the death of her brother Joseph.

Erskine looked with unseeing eyes toward the changing mountain scenes by which the swiftly moving train was passing. Then he turned to McGrane, who still sat facing him.

"Come over here, Barney," he said quietly.

The Irishman seated himself at Erskine's side.

"Barney," Erskine went on, "in three-quarters of an hour we shall leave the train at Wapiti Falls. How soon we shall get away from there I don't know, but while we are at the place we must keep as well out of sight as possible. It is not unlikely that we shall see there some one whom both of us have seen before.

"If we do so, keep your head, and prevent him from seeing you. If he sees you or me, it is probable that our long journey out here will have been made in vain. Is this clear to you?"

"Yes, sir," replied the Irishman, moving uneasily as he spoke. "But suppose the blackguard gets away?"

"Don't let the thought of that trouble you, Barney," said Erskine reassuringly. "He will get away from there without any hindrance from us; but, if all goes well, we will be off ahead of him.

"It is not at Wapiti Falls that I expect to land him, but it will be at Wapiti Falls that we must shape ourselves for the fight which we will have to put up within the next twenty-four hours—a fight which, unless we play our cards pretty carefully, is likely to have far more serious consequences for both of us than you can possibly imagine."

"I ain't thinkin' of no consequences, Mr. Erskine, so long as we can get our hooks into the sneakin' whelp we are after," answered McGrane with a shrug of his broad shoulders. "But what kind of a fight is it like to be, sir?"

"Well, we might be so hard put to it that we will be compelled to use almost anything that we may find handy for our purpose," said the Altoona man thoughtfully.

"There's guns in your suit-case," suggested McGrane, now venturing to speak for the first time of a subject which, heretofore, he thought it desirable to avoid.

"True," Erskine assented. "You are familiar with the use of a revolver, I believe."

"I've served with the British army in India," responded McGrane.

"So you've told me. But the revolver I am going to give to you is loaded only with blank cartridges."

"With blanks!" exclaimed the Irishman, disappointed.

"That's all; and when the time comes for you to use them, I think you will find that they are the only sort that you will require. I scarcely think that you will have an opportunity to get a shot at Montresor."

"Then there ain't goin' to be no real fight, after all?" muttered McGrane in an aggrieved tone.

"Oh, yes. I'm afraid that we'll have about fifty-seven varieties of fight before we finish the business we have ahead of us; but in the end you will admit that we will have done well to begin with blank cartridges."

The Irishman, looking open-mouthed through the window, nodded perfunctorily. It was plain that the prospect was not sufficiently sanguinary to conform with his idea of the fitness of things.

Wapiti Falls was reached at last; and as the train slowed down, Erskine and McGrane reached for their suit-cases and sauntered out to the platform of the car.

They were the first to alight; and, with his hat drawn well down over his eyes, Erskine, glancing sharply about him, led the way to the baggage-room.

Just outside this he paused, and, setting down his suit-case, looked toward one of the forward cars of the train from which he had just alighted. On the side of the car was painted the name: "Inter-State Express Company."

Despite the composure of his features, Erskine's heart was beating wildly as he saw the big door on the side of the car slowly open and a large truck draw up beneath it.

Package after package was transferred from the car to the truck, which, being filled at last, was drawn in the direction of the baggage-room. A moment later, however, a second truck was wheeled into place, and the hopes of Erskine revived only to die away again when a long, green canoe was thrust toward it from the car.

"Look, sir—for God's sake, look!" exclaimed McGrane as, with a trembling hand, he clutched Erskine's sleeve.

Startled by the horrified accents of his companion, Erskine followed the direction of his glance. Looking at him from a window of one of the Pullmans was the face of the young woman he had seen peering out of the coupé on the Lake Shore Drive shortly after Joseph Warrington had breathed his last—the face of the dead man's sister! A strange, hunted look was in her eyes, and her face was as gray as ashes.

That the young woman had seen and recognized him there could be no doubt. Why was she here? Where was Montresor?

CHAPTER XI.

Caught in the Whirlpool.

COMPLETELY bewildered by the sudden appearance of Louise Warrington, whom, until only a moment ago, he had believed to be still in Chicago, Erskine stared at her with dilated eyes. For a moment the young woman returned his gaze; then, with a quick movement, she disappeared from the window.

Slowly, Erskine's scattered wits came back to him again, and, as they did so, he suddenly became conscious of the danger of his situation. Having seen and recognized him, Louise now would take advantage of the first opportunity that presented itself to communicate with Montresor, and thus put him on his guard.

Picking up the suit-case which he had set down on the platform of the station, Erskine turned to McGrane. "Come, Barney, we must get out of this," he said quietly.

The Irishman nodded, and was following Erskine into the baggage-room, when the Altoona man turned abruptly and glanced in the direction of the truck to which the green canoe had been transferred from the express-car. As he did so he saw that two of the truckmen were placing in the bottom of the canoe a square box that had rope handles at the ends.

Again, McGrane clutched Erskine's arm. "That's her, sir—gettin' out—with the veil!" the coachman whispered.

The eyes of the Altoona man did not shift their gaze from the box in the canoe.

"And—oh, Lord love us, sir—her mother's with her!" the astonished Irishman went on.

The truck containing the canoe and box was now being rolled in the direction of the baggage-room, near the door of which Erskine and his companion were standing.

"Don't let them get out of your sight, Barney," directed Erskine, in a low, husky voice.

"They're goin' to the waitin'-room," said McGrane.

Into the baggage-room now rolled the truck which Erskine had been watching. The searching gaze of the Altoona man was riveted on the box that lay in the canoe. At one end of the box he read the words, "Anxell Typewriter."

Erskine's heart was beating wildly, and perspiration broke out in large drops on his forehead. He was standing within six feet of the object of his quest! In one corner of the baggage-room was an office of the Dale Express Company, and toward this the truck was being drawn by two sturdy porters.

In a low voice Erskine addressed McGrane.

"Take a good look at that box in the canoe, Barney," he said. "When we land that we shall be ready for Montresor."

The Irishman, turning quickly, gazed

at the mysterious box with wondering eyes.

"Will you recognize it when you see it again?" Erskine asked.

McGrane nodded. "I think I will, sir," he answered dubiously.

"Then get to the waiting-room, and keep an eye on the women," directed Erskine. "Keep out of their sight, if you can; and, above all, don't let yourself be seen by Montresor."

In another moment the Irishman was gone. Erskine slowly sauntered after the truck, which finally came to a standstill near the Dale Company's office.

Leaning over the canoe, with an affectation of carelessness, Erskine read the address:

CHARLES FALQUIST, Heath House, Tacoma, Wash.

Having learned this the young man continued on until he came to the desk of the office. There he spoke to a clerk.

"On what train do you make your next shipment to Tacoma?" he asked.

"On the seven-forty, sir," answered the clerk.

"But that is not the first train from here to Tacoma," said Erskine, in a tone of surprise.

"The West Coast express leaves here at four-thirty, but the Cascade Limited passes it at Tyrcone, fifty miles the other side of the Dumb-bell, and arrives in Tacoma more than an hour earlier," explained the clerk.

Erskine nodded and, as he turned away, he looked at his watch. It was twenty minutes after four. The West Coast express would leave in ten minutes.

As carelessly as he appeared to have entered it, Erskine made his way out of the baggage-room. On the station platform he paused and looked around; then, assured that Montresor or the Warrington ladies were not in sight, he directed his steps toward the waiting-room. Just as he entered the door of this McGrane touched him on the arm.

"They're sittin' over yonder, in the corner," he explained.

"Have you seen Montresor?" Erskine asked.

"No, sir," replied the Irishman.

In the corner that McGrane had indicated Erskine saw a veiled woman sitting beside a portly woman with white hair. He perceived also that from where the two women were sitting they were unable to command a view of one of the ticket windows.

To this window he accordingly made his way, and there purchased two tickets for Tacoma by the West Coast express. This done he returned to the station platform and took a position just outside the waiting-room door.

"Did you get the box, sir?" whispered the Irishman innocently.

"Not yet, Barney," replied the other, smiling grimly.

"Then we ain't ready yet for Montresor," McGrane muttered, with a sigh.

"Nearly ready, Barney," said Erskine.

From the east came a long, shrill whistle of an approaching locomotive. "This is our train, I guess," Erskine murmured.

The Irishman started, and darted a sharp glance toward the face of his companion. "We're leavin' Wapiti Falls?" he asked abruptly.

"Yes."

McGrane scowled. "The sight of Miss Warrington has changed your mind, then," he growled.

"No," Erskine replied. "We go with the box I pointed out to you. I have told you that not until we get possession of that box can we fight it out with Montresor."

"But Miss Warrington—what is Miss Warrington doing here?"

Erskine shrugged his shoulders. "That is her secret—and Montresor's," he answered gloomily.

The Irishman started, and looked at his companion quizzically.

"You ain't goin' to make any trouble for Miss Warrington?" he said doggedly.

"Not if we can convince her that it is in her interest to break away from Montresor."

A grayish pallor overspread the face of McGrane. "You—you don't think, sir, that Miss Warrington has come all the way out here to meet that murderin' Englishman?" he faltered.

"It looks like it, Barney."

"After what he's done to her brother?"

"It is probable that she does not know that Montresor is responsible for her brother's death."

"But she knows that Mr. Joseph is

dead; and, knowin' that, why wouldn't she wait over in Chicago until after the funeral?" asked the bewildered Irishman.

"The fact that she is here, and accompanied by her mother, indicates that they left Chicago before the body of young Warrington was found. It is apparent that they came on the same train that brought us here. This, as you will remember, left Chicago shortly after daylight."

McGrane nodded gloomily. Then, after a pause, he said: "That looks likely enough, sir. But if we was to tell them that Mr. Joseph is dead, and how it all happened, don't you suppose that would be enough to make Miss Warrington break away from Montresor?"

"They would insist on some corroboration of our story, and an hour or more might elapse before they would succeed in obtaining this. We cannot afford to wait. Of one thing, however, we may be sure. Miss Warrington and her mother are going the way of the box which, within the next twenty-four hours, must be in our possession. That way is ours, and it is not improbable that we shall have the two ladies as fellow passengers."

As Erskine finished speaking the West Coast express slowed down at the station platform. With his ticket and berth checks in one hand, and his suit-case in the other, Erskine hurried toward the train, with McGrane at his heels. A porter conducted them to the section which Erskine had engaged.

As they seated themselves both men glanced out of a window that commanded a view of the station platform. A moment later they saw Miss Warrington and her mother leave the waiting-room and move quickly toward the train. Miss Warrington, who still wore her veil, glanced from right to left, but whether she was looking for Erskine and his companion, or for Montresor, was a matter of conjecture so far as the Altoona man was concerned.

In less than half a minute the young woman had again disappeared from Erskine's view, and he doubted not that she was ascending the steps to the platform of the car. Rising abruptly, he made his way to the rear of the car in which he had been seated.

He had taken only a few paces, however, when he saw her just before she disappeared in the stateroom at the end of the car. Satisfied that she was indeed on the train, Erskine returned to his seat.

As he sat down the Irishman looked at him interrogatively. Erskine nodded, but did not speak. McGrane compressed his lips and looked out of the window. With the exceptions of Erskine, McGrane, and the two women who had entered the stateroom, all the other occupants of the car had been on the train at the time it arrived at Wapiti Falls.

Five minutes after Erskine returned to his seat the train drew out of the station. As it did so McGrane, who occupied the front seat, leaned forward and addressed Erskine, who sat facing him.

"Ain't seen him yet?" the Irishman asked, in a hoarse whisper.

Erskine shook his head. McGrane sank back dejectedly. The younger man then took from his pocket a time-table which he had been studying at various times while he was riding between Chicago and Wapiti Falls. After looking this over for several minutes, he glanced out of the window, then rose abruptly.

"I'll be back in a few minutes, Barney," he said shortly.

A moment later he was standing before the closed door of the stateroom which he had seen Miss Warrington enter. After a brief period of hesitation he set his lips firmly and knocked.

CHAPTER XII.

A Sinister Shadow.

WITH a rapidly beating heart, Erskine waited for an answer to his knock. This was so long in coming that he was about to knock again when the door opened and Louise Warrington, with her veil thrown back, stood before him. The young woman's face was very pale, her eyes were red, and there were dark circles under her eyes.

Erskine had expected that the young woman would receive him with some manifestation of surprise. On the contrary, however, he found her singularly self-possessed. For several seconds she regarded him gravely, then, in a low, quiet voice, she said:

"Come in."

Erskine bowed, entered, and closed the

door behind him. Louise seated herself beside her mother, who surveyed Erskine coldly. The young woman looked out of the window.

As Erskine stood awkwardly just inside the closed door, the train rounded a curve so quickly that the young man almost lost his footing. He quickly recovered his equilibrium and, addressing Mrs. Warrington, he asked:

"May I sit down?"

Ignoring the question, Mrs. Warrington turned toward the window, as her daughter had done. Erskine flushed painfully. It was plain that both ladies resented his intrusion, and were not disposed to converse with him. Doubtless, Louise believed him to be nothing more than an ordinary detective, who had been assigned by her father to watch her movements.

If this were so he scarcely could charge her with lack of courtesy. It was manifestly impossible for him to carry on conversation while trying to maintain his balance in a swaying car; so, reluctantly enough, he dropped his hat in the vacant seat opposite Mrs. Warrington and her daughter, and sat down beside it. For more than a minute the silence was unbroken. Erskine was the first to speak.

"I am sorry to intrude upon you in this manner, Miss Warrington, but circumstances compel me to do so—in the interest of both of us," he said.

"I am not aware, sir, that we have any interest in common," the young woman answered frigidly, and without turning her head.

"I think that when you come to know me better that you will recognize the fact that, in some respects, at least, we have several interests in common," said Erskine gravely.

"I have no desire to know you better, sir," retorted the young woman, now flashing toward him a glance in which resentment and contempt were blended.

"It will be well, however, for you to hear something which I have come here to tell you."

Louise shrugged her shoulders. "Only a matter of considerable importance would justify your presence here," she answered shortly.

"I am quite aware of that," said Erskine, flushing. "But, in speaking of it, I should like to feel that I am not misunderstood. It will be better, therefore, for me to put you in the way of learning from others something which you probably would not credit were you to hear it from me."

Louise looked at him quizzically. "To what 'others' do you refer?"

"To your father, or any of your intimate friends who are not under the influence of Mr. Montresor."

The young woman flushed angrily, and looked at Erskine steadfastly, saying:

"Your meaning is so obscure that I'm afraid I cannot grasp it. What is it that you are so disposed to put me in the way to hear?"

"The report of a misfortune that has befallen your brother."

The young woman started violently, and a stricken look came into her eyes. Her mother gave utterance to a little cry and, facing Erskine, impulsively grasped her daughter's hand.

"What misfortune has befallen my son?" Mrs. Warrington demanded.

And now Erskine suddenly realized that he had blundered. He knew that this revelation should not have been made until after he should have attempted to win the confidence of the two women by other means.

"Well, sir, why do you not speak?" the elder woman asked impatiently.

"I should advise you to telegraph to Mr. Warrington, asking him if anything has happened to your son," said Erskine.

"I have not asked you for advice," Mrs. Warrington retorted. "You profess to know that something has happened to him. Tell me what it is."

Again Erskine hesitated. Louise laid a hand on her mother's shoulder.

"Do not let this man alarm you, mother," the younger woman said reassuringly. "He has been paid to spy upon us, and thus far he has succeeded. Now, in order to compel us to turn back to Chicago, he is trying to make us believe that something serious has happened to Joe.

"He is only a detective, mother, and it is the practise of detectives to lie whenever they think a lie will aid them in attaining their ends. This man has planned the thing with father, who, if we telegraph to him, will reply, of course, that Joe is in trouble, and that we must return at once."

"You have said enough, Miss Warring-

ton, and I will leave you," he answered, in a voice that shook a little. "Before I go, however, it is only fair to explain that the man who was introduced to you by your father as you were preparing to go to the opera was not a professional detective, nor was he one who willingly undertook the task on which he is now engaged —a task which he little thought would expose him to your enmity."

"These explanations are quite unnecessary," Louise answered coldly.

"Nevertheless, I am determined to make this one," said Erskine doggedly. "You are right when you infer that my introduction to you by your father was for the purpose of affording me an opportunity to meet Mr. Montresor."

"You found that opportunity, I believe," retorted Louise.

Erskine colored slightly, but, as gravely as before, he answered: "Yes, and had it not been for that meeting I should not be here to-day; so, despite the assault that was made upon me on that evening, I have much to thank you for. You are wrong, however, in assuming that it is part of my duty to keep you and your mother under surveillance.

"Our meeting at the station which we have just left was quite accidental."

"Accidental!" Louise exclaimed incredulously. "Do you ask me to believe that you did not follow me to the train which brought me to Wapiti Falls?"

"Whether I followed or preceded you to that train I do not know. I certainly had no suspicion that you were on it until I saw you at Wapiti Falls."

"Then why are you here?"

Steadily returning the half-mocking, half-defiant gaze of the young woman who confronted him, Erskine hesitated, then his white face grew more tense as in a low, deliberate voice he answered her:

"I am here to save from disgrace every member of the family whose name you bear, and to bring to the bar of justice the man who robbed, then murdered, your brother!"

With a cry of horror, Mrs. Warrington half rose from her seat. Louise, scarcely less agitated than her mother, seized her arm and drew her back.

"Murdered?" the elder woman whispered hoarsely.

"When?" demanded Louise, in whose eyes was an expression of incredulity.

"Just before you saw me crossing the Drive, in front of your house—while you were returning from—the opera."

"You—you were with McGrane?" the young woman faltered.

"Yes. At the time that your brother was assaulted McGrane was with him. Both were overpowered, and your brother received a wound from which he died a few minutes afterward."

A strange calmness came over Louise. "Where did the assault take place?" she asked, with trembling lips.

"On the lake front, below the sea-wall, in front of your house."

"How did you happen to be there?"

"McGrane told me that Montresor sometimes went to that spot—to talk with your brother, or to receive messages from his friends."

Overcome by the manifestations of the pain which necessity had compelled him to inflict on these two women, the young man allowed his gaze to fall. Louise continued to regard him searchingly. Then, in a cold, quiet voice, she spoke.

"My father told me that McGrane had been drinking, and that for this reason he had been discharged," she said. "It is only natural, therefore, to infer that he was angry at our family, as well as intoxicated, while you were with him. Are you sure that in the darkness you did not mistake my brother for the man who had assaulted you in Lincoln Park?"

The Altoona man grew livid.

"You—you mean—" he stammered.

As he hesitated Louise, with an arm around her sobbing mother, straightened herself slowly, then, leaning toward Erskine, she said:

"I mean that I shall communicate at once with Chicago, and if I find that any calamity has befallen my brother I shall cause you to be followed to the very ends of the earth!"

With flashing eyes the young woman rose and pointed to the door.

"Go!" she commanded sternly.

Too dumfounded to reply or move, Erskine stood staring helplessly at his beautiful accuser. Was she only acting a part, or did she really harbor the suspicion which her lips had just expressed?

(To be continued.)

OLD-TIMER TALES—No. 4.

Surveying the Bad Lands.

BY BERTRAM ADLER.

THE boys who started out to "win the West" by laying two strips of steel over a right of way, and especially those intrepid heroes—the surveyors—encountered romance and adventure in the truest sense of those much-abused words. Breaking into an unknown wilderness without guides, hunting the wild beasts for food, dodging Indians that hovered in ambush—these were but a few of the obstacles that stood in the way of the men who broke through our frontier to open new lands of wealth and wonder.

Those days have gone. Their men and the achievements of those men are history. We live in the great era of commerce that their work produced.

Desperate Encounters with Indians and Other Hardships of the Men Who Made the Preliminary Survey for the Northern Pacific's Route from the Great Lakes to Puget Sound.

J. H. COTTER, messenger for the Northern Pacific Express Company at Spokane, Washington, where he has been employed for the last twenty-five years, was with the Stanley party in 1872, when the Northern Pacific Railroad made its preliminary survey through what is now North Dakota.

"In the spring of 1872," said Mr. Cotter, "I was employed by the Northern Pacific Railroad at Brainerd, Minnesota. The company was just starting its overland road from the Great Lakes to Puget Sound. The road was built only as far as Brainerd at that time and in operation, while west of Brainerd the graders were at work between the Mississippi and the Red River.

"E. C. Winne was purchasing-agent for the company, furnishing all supplies, stores, horses, and wagons needed in the engineering department for the construction of the road.

"Having several parties out on the line, it was necessary to have horses to transport their camps and supplies. Mr. Winne went to St. Paul to purchase horses. I received a telegram from him to report to him at St. Paul and to take a car-load of horses to Fargo, North Dakota. We had to ship the horses by way of the St. Paul and Breckenridge, which was the only road running at that time.

"When I arrived at Breckenridge I had to go sixty miles overland to Fargo. West of Fargo there were engineering-camps strung along which had to be supplied with provisions and outfits, and the graders' camps between the Red River on the north and the Missouri River.

"I was instructed to take a telegraph outfit through to Jimtown, one hundred miles west of Fargo. Arriving there with an operator, I reported by wire to Mr. Winne. This was the first message over the line.

"I received instructions from him by

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wire to proceed to Bismarck, on the Missouri River, to accompany an expedition for laying out the preliminary line of the Northern Pacific through to Yellowstone, Bismarck being the starting-point of the expedition.

"Camp was fixed at Bismarck, and the expedition was to start about the middle of July, supplies and everything being brought up the Missouri River by steamboat.

The Sioux Hunting-Grounds.

"We crossed the river on the steamboat the middle of July. The engineering forces were under the immediate command of General Rosser, a noted cavalry officer of the Southern forces in the Civil War.

"The country west of the Missouri River was wild, and the route through the Sioux hunting-grounds was dangerous. It was necessary to have an escort of soldiers and government troops. General Stanley was in command at Fort Standing Rock, with six hundred troops under his immediate command, and equipped with forty re-scouts, with Louis Agard, one of the most notable guides of the West, in charge.

"The engineering-party started from Fort Abraham Lincoln, while the command under General Stanley started from Fort Standing Rock. Two days' march brought the columns together. Fort Lincoln was being built at that time.

"There were sixty-five government wagons, one hundred two-mule wagons, and the engineering department had twenty four-horse wagons which hauled supplies, camp, and baggage. There were two surveying-parties of twenty men each, surveying two preliminary lines, and a guard of soldiers with each.

Striking the Bad Lands.

"In our line of march, the re-scouts were in the lead, scouring the country, watching for the Sioux tribe. We proceeded west till we struck the Bad Lands, which was once a vast coal-field, and had been burning for years. Fires were burning when we reached the Bad Lands, which are twenty miles wide and extend from the Black Hills on the southwest to the Missouri River on the northeast. The Little Missouri River traversed the whole length of the Bad Lands.

"The first night in the Bad Lands one of our hunters killed a bear, and we had meat for supper and breakfast. These hunters went ahead with the re-scouts, killed the game, marked the meat for each company, and left it lying where we would pick it up as we came along. We had two hunters for each party.

"Arriving at the Little Missouri River, we had to camp there a week on account of high water. In going through the Bad Lands we had a skirmish-line out on each side of the train to protect us, and from that time on we kept a skirmish-line out, as the Indians were beginning to be troublesome.

A Narrow Escape.

"One night we made a dry camp. We had to go out and hunt for water. The scouts reported water a mile and a half from us, down in the gulch, where we could not get a place to camp. We had orders to go there for water, with guards for protection.

"John Bear and I took the lead. We got within twenty rods of the water, but the Indians were in ambush, and if it had not been for the soldiers coming up at the time, I would not be here to tell the story.

"We were attacked one night, and had to call out the troops. Shots were fired back and forth, but no damage was done, no one was killed.

"Arriving at the head of O'Fallon Creek, in a valley three-quarters of a mile wide, with bluffs on each side, the Indians attacked us again, riding up on top of the ridges and shooting down at the party.

"The skirmish-line on each side of the train climbed the mountains and drove off the Indians. There were one hundred and fifty reds in the party, as near as we could learn. Louis Agard, our guide, was known to many of the Indians, and he rode out to the camp and talked to them.

"They notified him that they were going to kill us, as we were going through their hunting-grounds, and that was what they did not like.

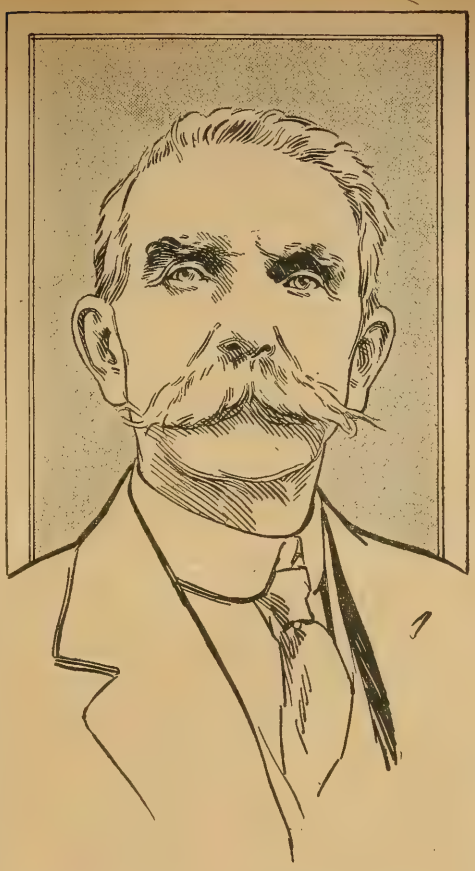
"The night of the attack on O'Fallon

Creek, five of the re-scouts were missing. The next morning at dawn they came into camp, their horses reeking with sweat.

The Indians had been chasing them all night, but they managed to keep out of their way.

"While camped on our backward journey, thirty miles from the Yellowstone River, General Rosser, with one guide and an escort of two, had to make a trip back to the mouth of Powder River. He made the trip inside of twenty-four hours, luckily not seeing an Indian, although there were plenty of them around, watching.

"The Indians in those days used looking-glasses to make signals. We could see them giving signs nearly every day, reflecting with the sunlight across the prairies for miles.



J. H. COTTER,

WHO WAS WITH THE NORTHERN PACIFIC'S SURVEYING-PARTY IN 1872.

"Every man was furnished with a needle-gun and a belt of cartridges, supplied by the government, the guns to be returned to the government when we arrived back at Fort Lincoln.

"At that time it was thought that gold would be found in plenty in the Yellowstone River.

"We had in our party many gold prospectors and hunters who took the trip to seek for gold. At nearly every creek we would come to we would see them out with their pans washing for color. These prospectors and hunters would drive the horses for us, and do work about the camp, just to be along with the party.

"While we were camped at Bismarck, before we crossed the river, we could see through our telescopes the re-scouts and the Sioux fighting, six miles away. One night the Indians came to the camp and shot through the wagons, but hurt no one.

"The next sunrise we broke camp, but before the last wagon left the Indians attacked us again. General Stanley ordered us into corral immediately on the run. The Indians fought us for three hours, but were finally chased off by the scouts and the skirmish-lines.

"We proceeded down the creek until we struck the the Yellowstone River, following the Yellowstone up to the Powder River, where we expected to meet a surveying-party which had started from Helena, Montana, at the same time that we started from Fort Lincoln.

"We camped at the mouth of Powder River, with no signs of the other party. While at this camp the engineering department was running a line a few miles farther. They were attacked by the Indians, and one of the party became separated, but the re-scouts came to his assistance and saved his life.

"While at that camp on the Yellowstone River, the men decided to go in bathing. There were about two hundred of us in swimming when the Indians approached from the opposite side of the river and began firing on us.

"The men did not have time to dress, but grabbed their clothes and ran for camp. Fortunately the bullets went wide.

General Stanley ordered the cannon unlimbered, and fired a few shells across the river, driving the Indians away. We lay in camp two weeks, waiting for the other party from Helena, but could hear nothing from them. We started on the return and camped again on O'Fallon Creek.

Provisions Getting Low.

"As our provisions were getting low, it was thought necessary to start part of the train back to Bismarck after provisions, while the rest of the department was surveying. We had orders to leave the camp at twelve o'clock, night, so that the Indians would not know that the party had separated.

"We left camp in two columns, with a skirmish-line on each side for protection, and traveled until sunrise.

"While at breakfast, our scouts on the lead reported a courier advancing. This courier had left Bismarck three days before, traveling day and night, with despatches stating that the surveying-party from Helena, which was to meet us at Powder River, had been compelled to turn back on account of the Indians.

"These despatches had to go by courier from the engineering-camp to Helena, Montana, then by wire to Omaha, from Omaha to St. Paul by wire, and from St. Paul to Fort Abraham Lincoln by wire, and thence by courier to our camp.

"The Indians had driven the other party back, and General Stanley was advised to be on his guard, as the redskins were coming to drive him back also. The courier took breakfast with us and proceeded on his way.

A Running Fight.

"We traveled as fast as we could to Fort Lincoln for our supplies. Loading up as soon as possible, we started back again, not knowing where we would meet the other party, but expecting them in the Bad Lands of the Little Missouri.

"Arriving at that river, on our second trip, we could find no trace of the expedition. We sent the two scouts out to hunt for the engineers. They were driven in by the Indians; one of the horses was shot through the head, but able to bring its rider in. The other scout returned with a bullet-hole through his coat.

"Next day we sent out ten scouts, who had a running fight with the Indians, but they located the surveying-party. We stayed in camp on the Little Missouri until the other party came. The Indians sent word that they would kill us all.

"One day, as we were on the march, the lieutenant was outside of the skirmish-line hunting antelopes. The Indians shot and killed him. Several Indians rode up to scalp him. One dismounted, and just as he was about to put his hand on our comrade's hair, General Rosser shot him.

Wouldn't Scalp a Negro.

"A short time after that, on the same day, a colored cook was hunting antelope with a white bulldog. The Indians killed the cook and the dog, too, but would not scalp the negro on account of his curly hair.

"They stripped him and left him and the dog side by side. The lieutenant and the cook were both buried by the troops.

"We returned to the Missouri River October 20, this being the first preliminary line surveyed for the Northern Pacific west of the Missouri River. Another expedition was sent out in 1873, and ran a preliminary line several miles from the one we made, but it was not until after General Terry's command, which was out in 1876, at the time that General Custer and his gallant troops of the Seventh Cavalry of three hundred were massacred on the Little Big Horn, that the Northern Pacific could start grading on the west of the Missouri. The engineers and graders had to be protected by troops during their work. At that time it was a wild, unbroken country. Today it is covered by farms, and prosperity reigns supreme."

You need better brakes for "drifting" than you do for climbing. An easy life is not always the safest.—Precepts of an Eagle Eye.

BILL DAIDY'S CHAPTER.

BY ROBERT FULKERSON HOFFMAN.

A Sharp-Tongued Engineer Wins Recognition Kicking Everything in Sight, and Then Some.

IT is a feature of the glad, free life of this republic that every man is entitled to an opinion on everything under the sun, and, within wide limits, is entitled to the unrestricted expression of that opinion.

Bill Daidy is one of those who believe there is good in the large exercise of that privilege, although of late years he has added caution to candor.

In the old days he came in off his engine, loaded with the usual accumulation of griefs over the shortcomings of the roundhouse, which are apt to loom large in the long watches of the night-run.

He gradually grew the habit of closing his regular harangue to the roundhouse foreman with a sort of peroration which summed up the real or imaginary derelictions of everybody connected with the road, from call-boy to president.

In an effort to break the flow of Bill's rough eloquence the roundhouse foreman unwittingly set Bill's feet upon the path that led upward—downward, Bill laughingly insists sometimes.

"Bill, why in thunder don't you write a book?" said the long-suffering foreman, when Bill had become more than usually aggressive in his none too gentle impeachments. "You are sure wasting your talent on an engine."

Bill glared for a moment before he was able to let down the pressure of road management which he had mentally assumed, and then, as the recollection of a purchase he had recently made for his growing son flashed across his mind, he gave way to a slow grin and said:

"Blamed if I don't believe that's a good idea, Ballard. Maybe I'll just go you a chapter, when my boy gets fit with his machine."

So, Daidy, in his evenings at home, took to rehearsing his daily griefs to the boy, who laboriously hammered them out of the typewriter into grotesques of composition and the printer's art.

Meanwhile the boy grew rapidly in the skill of the machine, while Bill's ideas of his wrongs and tribulations went farther and farther afield, but became more clean-cut and pointed as he put them to the cold test of reading.

Daidy "dictated" and "revised," "killed copy" and "edited," although he did not know it in those terms, and after many days what he had grown to call "The Chapter" was finished, decked out with border-lines that fairly exhausted the resources of the boy, and the eighty-odd characters of the machine.

Bill gloated over it for a week of nights, and then liked it so well that he decided to have it all done over again, in order that he might not only supply Ballard, but also send carbon copies of it surreptitiously to the superintendent of motive power, the division superintendent, and—holy of holies—the general manager.

He shrank, somehow, from including the master mechanic, who had a convincing and abrupt way of puncturing bubbles. Therefore, that able gentleman was, for the time being, blissfully unaware that the seeds of a great accomplishment were germinating within his bailiwick.

The superintendent of motive power duly received his copy, threw it in the waste-basket, and remarked casually, "Bill!"

He liked Bill, but not Bill's too free excoriations.

The division superintendent read his copy and, laughing, pigeonholed it for future use in letting down the pressure of the superintendent of motive power, when next they should lock horns over engine-failures.

The general manager took up his copy from its personal cover and read it from start to finish, as follows:

CHAPTER ONE.

IF this don't fit your case, you get a clearance card right here. The board is out for others.

When you build an engine and want the most results and don't care what kind, fix yourself with a lot of discouraged draftsmen, and, for chief, get a good wrangler that talks into his whiskers and don't decide much.

Tell them fellows, at the start, that you put them into that cheese-box office to stay, and they can't break out onto the road to see an engine do business, noways.

Don't pay any of them too much. They are working on paper, and you can easily fix the engine after we get it.

Hire a lot of master mechanics that know all about sawmills. There ain't none around here, but you can see them running in the woods if you take a ride with me. They will be ready to lay up your new engine when it comes out.

Fix up boiler steel specifications that you know are O. K., and then let the purchasing agent bluff you into taking something better but cheaper; he can prove it. That will sure give a lift, once in a while, to some of us fellows that's a little slow about circulating in the scenery, and it will make things brisk in the boiler-shop. Them fellows need work. They are too strong to rest nights.

Use hammered engine-frames. If I was a track-man, I'd like to be able to put my hand on a busted weld and say, "Them's it," after the engine jumped the track and got pulled out of a borrow-pit. The despatcher won't care, if she don't block the track. It makes work for the blacksmiths.

Fix your spring-rigging so, when it breaks, the equalizer will hit, point down, in the track. Gives the engine a better start when she jumps. She will go farther and everything had ought to be made go as far as it can.

Truck-pedestal binder-bolts should set low enough to rip up a frosty plank crossing. It gives the engines a good name as goers. One nut's enough. Two stay on too well.

Put your driving-box wedge-bolts in a safe-deposit box behind the driving-wheels. Somebody might get at them with a wrench, on the road. Wedge-bolts had ought to be smelled or heard from when the journals screech; not seen.

If anybody thinks he wants to slack a wedge-bolt, let that man shoot the jamb-nuts off with a gun. That's what guns is for, and they'd ought to be carried in the tool-kit.

The roundhouse gang's too good for the job. New engines don't run hot soon enough to suit yours truly. Put a crew of hoboes in there and tell them they got to save oil and ram the cellar-packing down in with a pinch-bar. They will do it. The babbitt and stuff you drop over the division makes good ballast.

Wall in your cellar-bolts, so if a fellow gets them out, digging babbitt out of the cellar, on a fast run, he can't get them in again inside of fifteen minutes apiece. The despatcher won't care—ask him—and the engineer daresn't. It's all he can do to talk his way out of a lay-off.

Don't you worry about front-ends. If the engine looks good to you, but don't steam no more than a teakettle with the bottom out, let the trainmaster put on a helper once in a while. Three or five years from now somebody else will have your job anyhow, and he'll set most of your front-end furniture out on the scrap-pile while he cleans house, and forget to put it back again. That will help some.

When some fellow offers you one of them superheaters or feed-water heaters with his name stamped onto it, tell him to go over to the Y. M. C. A. library and read ancient history on how them things was let rust off of every sacred-ox cart in Egypt six thousand years before George Stephenson—and why don't he go get a patent on an incubator or something useful?

Put the biggest smoke-stack onto her that your money will buy without passing dividends. It makes what my old schoolmaster used to call "quiet dignity"; like big ears onto a jackass.

You can easily choke down the exhaust-nozzle to suit, and the general manager ain't ashamed to say that he don't know back-pressure from lumbago. He's a healthy man, or was, the last time I pulled him, and can't bother about little fleas like them on the railroad dog.

Run out a long extension on the front end. It's no good, but it gives a bejolly look that makes newspaper men gape at her and say she's a wonder for speed. That'll do the general passenger-agent good, but he knows it ain't so.

If you find there's rooms to rent in the front end after you get it done, and the

heater men show up again without the incubator, fill her up with their stuff. It's hang for us fellows, but it helps hold the front trucks down when you're going some.

Bend your feed and air pipes as sharp and as often as you can. It shows that nobody was looking and they freeze up quicker

Look out for your engine-cab. Fix it so that if a fellow goes to the front door he can't get back again to the throttle without getting orders from the despatcher, showing that the main-line of the cab is clear.

Put the injector, the levers, and brake-valve where he can't get at them too soon. He will find them with a torch. Stand the reverse-lever where it will corner him hard against the cab in back-motion, and throw him out of the front door when he lets it down to drift. Make it short and a hard kicker. Don't put in a foot-rest. He might pull up the rails.

Set the engineer's brake-valve where the handle will connect with a fellow's breeches when he climbs up or down, and make a full application or release. It will make business for the claim department, and the man that runs her will get a gift of gab that ain't found in no almanac—same as the rest of us.

Any man that says the valves rub the balance-plates is most generally mistaken. If the reverse-lever kicks clear of the quadrant and deals him a solar plexy—never mind. He can't swear until he comes to, and the passengers will blame it onto him anyhow. He's got to get there or get off. You know it.

When he wants the fit of cross-head keys and spiders examined, tell him it was the main rod he heard. It's rich to let a cylinder-head go out once in a while; sounds patriotic, and makes them fellows in the machine-shop feel they are worth while.

The boy allows we are working too many nights at this. He wants a change. We are. So don't you bother about fire-boxes and ash-pans. When the president sends word that he "couldn't see the right of way on his last trip for smoke," send him to me, and I'll tell him he was on the wrong end of the train. It was all clear ahead of the engine.

That'll make him know that we are men of some parts; part wood and part leather, with brass trimmings—which I am

Yours truly,

WILLIAM DAIDY, *Engineer.*

It has been a number of years since Daidy handed his chapter, duly sealed, to Ballard, in the roundhouse, and Ballard pocketed it, unopened, as Daidy went out upon his run. But Ballard still has the first page of it framed above his desk, in its what-not border, composed of all the claw-marks and constellations that Daidy's invincible typewriter could produce.

Ballard is not, fortunately for him, a roundhouse foreman now, and Daidy's modest title of engineer has also undergone some changes for better.

It was with the general manager, however, that the seed of Daidy's rough-shod sowing first took root, although no intimation of that reached Daidy at the time, except in the master mechanic's peremptory challenge when Bill arrived back after a lay-over of two days at the farther end of the division.

"Say," demanded the master mechanic, "do you carry that cussed typewriter of yours on the engine with you?"

"Naw," Bill answered promptly.

"Well," said the master mechanic, with the absorbed air of hearing other things than Bill's reply, "you want to quit it."

Daidy, seeing farther than across the right of way, said no more, but departed.

When a man has enough strength of character to get his head above the level of railroad waters, however grotesquely he may at first appear, there is usually something in him worth observing. If he has balance and staying powers he may get his feet upon the solid, and a leader has been discovered.

Somewhat in this fashion the general manager reasoned as he read Bill's chapter. He called his secretary, and by careful question and reply it was soon established that neither of them knew who William Daidy was, nor what of William's chapter was fact and what fancy.

Therefore, the general manager made a brief investigation, put some pointed questions to the superintendent of motive power, who fumed a little, but electrified the master mechanic (as witness his short and simple inquiry of Bill), and thus Bill's little seeds began to grow apace.

Changes were made. Plans were devised and revised until new engines bore signs of improvement. These things were discussed on the home road, and the news of them went broadcast over many roads.

Bill's ideas bore the test of service, and flourished like the proverbial green bay tree, until finally they came before the "First Intelligence," the "Great Arca-

num," or " Court of Last Resort " of the railroad mechanical world, and were called good. No longer bearing the name of " William Daidy, Engineer," it is true, but labeled with the names of many men, for that is the way of the world, and the destiny of all things that are good enough to prove good.

But the " Court of Last Resort " called them good, under whatever sponsorship they then appeared; and for those who long ago read the lines of Daidy's chapter, and read between those lines as well, there is written large upon the modern locomotive the story that is written here.

Bill never got beyond " Chapter One " of Ballard's " book." There was no need. But having demonstrated that he was " a man of parts," it was thought advantageous to transpose him to the ranks of those he had smitten. Thus, Bill became a road foreman of engines—and more.

THE BREVITY OF RAILROAD ORDERS.

British Railroader Thinks that Those Issued in America Should Contain More Information.

THE following interesting comment on American methods appeared in a recent issue of a London contemporary:

" One feature that strikes a British railway officer when visiting America is the frugality of the notices given to trainmen as to signal changes, as compared with those issued in this country.

" Our practise is, as a rule, to have a block showing the shape of the signal, to give its name, distance from the signal-box, and position, whether on the up or down side of the line. All new signal-boxes and new or altered junctions, cross-over roads and other connections are described in great detail. These details, to an American, no doubt, appear unnecessary, and, possibly, they are so. But they have contributed to the great safety of British railways.

" The brevity of the notice issued by the Lake Shore and Michigan Southern Railroad, when the working of the lines between Chicago and Elkhart was changed from left-hand to right-hand running in July last will point our remarks.

" Although the length of railway affected is ninety miles, the notice of the changes and of the essential alteration to roads and signals is contained in eighty lines, from which we extract the following:

" ' Rule D-108 will be modified as follows: Where two main tracks are in service trains will use the right-hand track unless otherwise instructed. When more than two main tracks are in service, instructions as to their use will be given in the time-table.

" ' The following new sidings will go into service at the same time.' Here follows reference to seven sidings, all the details of which are given in fifteen lines.

" ' At various stations track changes have been made, especially in cross-overs. All concerned should familiarize themselves with the changes.

" ' Interlocking, train order, and automatic block signals will be located either over or upon the right of and adjoining the track to which they refer.' "

The change, notwithstanding the lack of information as to its extent, was made without any mishap or delay.

Might it not be that the writer of the above comment saw an *apparent* brevity in the notice mentioned and failed to appreciate that a vast amount of work had been expended upon this notice to bring it down to a form in which it could be most readily and effectively comprehended by the engineman, says *The Signal Engineer.*

The fact that the change-over was made without any mishap or delay seems to prove conclusively enough that the notice in its final form was not too brief. Any implication in this comment that the prevailing practise of giving as little as is required in notices of this character in America is a contributory cause of unsafe operation is entirely unwarranted.

Operating officials in this country know their roads and know their men. If there appears to be a seeming meagerness of detail in the instructions that they give to engine-men in cases of this kind, it is because they regard brevity a virtue so long as it is not inconsistent with the full understanding of the situation on the part of the engineman.

Results prove that though the instructions are *brief* they are not lacking in essential information.

Letters of an Old Railroad Man and His Son.

BY HERMAN DA COSTA.

No. 6.—WHY THE KNOCKER ALWAYS LOSES.

Jim Suddenly Discovers that a Haughty Gent Has Been Placed Over Him, and He Writes Papa that He'll Resign at Once.

JIM TO THE OLD MAN.

DEAR DAD: For the last week I've been as mad as a hornet. Bigby had to quit on account of illness, and, naturally, I was right in line for his job. I held it, too, for over three months while he was away, and got along first-rate—according to what Connolly said.

Last Monday morning, Connolly brought a new man up to me, and introduced him as T. F.'s new secretary.

For a moment, I was flabbergasted. Then I stood up, shook hands and said something, and went back to work. But all day I felt as mean as a cat that's been given a bath.

It didn't seem right, and doesn't even now, that a fellow should come in and be put over my head that way. I remember telling you that if a man deserved it, he ought to get promoted, no matter who was in the way; but the fact is that this fellow doesn't know the next thing about railroading, and is as much able to do the work as a salted mackerel.

For instance, he wrote the general manager of the B. and D. S. W., asking him to explain how No. 6 happened to lose two hours on the Illinois Division, when even the office-boy knows that we haven't got anything to do with the Southwestern, and have no business asking them to explain delays unless we write them through the president.

We got a hot letter from Burnsides, of the Southwestern. He wrote direct to the president, asking him if T. F. had so little to do that he wanted to butt in on another division. The president sent for T. F., and Mr. Private Secretary got a grilling.

Later, I found out that some fat-head director had asked the president to appoint this man as private secretary to some official, and as this director was an influential man he was given the place that Bigby left vacant.

It's a shame. I wouldn't mind it so much, but Grand, the new man, is a haughty cuss, whose father and mother are in society, and he won't speak to you like a decent fellow. Just a couple of days ago he sent for me. When I entered the office he wheeled round in his chair.

"Take this letter, Britt," he ordered.

"Take it yourself!" I fired back.

He got red. "You're insolent. Will you take this letter, or won't you?"

"I won't," I answered.

Then I left him, and went back to my work. In a minute or so he came out to Connolly and marched up to his desk. "I instructed that young man to receive this dictation, Mr. Connolly," he said, "and he refused to do so."

He handed Connolly the letter. Connolly was pinning some correspondence together, and he forced a big pin through it before he answered. "That's all right," he replied; "I'll give it to him. Mr. Britt," he called out, "would you mind taking this letter for me?"

I took my book and hustled over to Connolly's desk. Grand stood there for a second, frowning, then went back in the office. When Connolly got through dictating, he stopped me as I was going.

"If you haven't got much on hand, and he asks you to do work for him," he said, "go ahead and do it. I know you aren't supposed to do it, but give a man enough rope and he'll hang himself."

Of course, Connolly is right in what he says; but it makes me hot to have to work for this man. I've taken dictation from him a couple times since, but never speak to him except on business.

He writes the worst fool stuff I ever read, but it's not my duty to correct it, and I send it out just the way he gives it to me. As a result, we've been called down several times by the freight traffic department. It made T. F. mad as blazes when Burnsides pitched into him, and Grand got a beautiful calling down.

I'm not feeling very much satisfied about things. If they can put in a man ahead of me on account of pull, I'm likely to stay in one position forever. I know enough now about railroad work to fill a position in almost any department, and I've been thinking about looking around for something else.

Still, I hate leaving T. F. and the office; they've treated me all right, and it feels like home now. But this "four-flusher," coming in with his aristocratic airs, is enough to upset anybody. The whole office has got it in for him. He had an argument with Lynes, and Lynes almost punched his head.

T. F. has been out on the line twice since the new man came, and each time he took him out with him. I noticed that both times he brought in a lot of letters and gave them to me to answer. He never did that with Bigby; so, evidently, the new man isn't making any great hit with T. F.

I think I'll look up a new place. If I can't locate anything, I guess I will resign, and come back home to visit you for a week or so. But there are lots of places around town, and if I can't get suited right away, I'll keep on moving around until I get something good.

The B. and D. isn't such a great road, anyhow; and it's mighty mean to work a game like this on me. A road that will give a man a good job on account of a big pull isn't worth much anyhow.

Love to mother. Affectionately,

JIM.

TELEGRAM.

JAMES BRITT, (Collect)
Care Gen'l. Mgr. B. & D. R. R., Balto., Md.
It takes grit to hold a job. Are you a quitter? WM. BRITT.

TELEGRAM.

WM. BRITT, (Paid)
Monongah, W. Va.
I'd rather be a quitter than a knocker.
J. BRITT.

TELEGRAM.

JAMES BRITT, (Paid)
Care G. M., B. & D. R. R., Balto., Md.
What's the use of being either?
WM. BRITT.

THE OLD MAN TO JIM.

DEAR JIM: Some time before you were born there were two men working for the B. and D. One was named Lynes and one Connolly. Both worked as clerks in the superintendent's office. Both were good men, knew their business, and stuck to it.

One day a fellow was brought in from the outside and put over their heads at a salary twenty-five dollars more than they were getting. Lynes went right up in the air about it. He kicked and stormed and knocked the road. Connolly took it quietly, obeyed orders, and when the other fellow told him to do anything he did it.

In about a month's time Lynes was completely changed. From being a steady worker, he grumbled continually, and disobeyed the new man and knocked him to every one.

At first people agreed with him. It looked tough to have a job like that put up on him, and they told him so. That made him worse than ever. But after a while people got tired of listening to

Lynes. They had their own affairs to attend to. They set Lynes down as a chronic kicker, and began to knock him.

Gradually he dropped out of things, and took to criticizing the road and the office in public.

In the meantime, Connolly had gone on sticking steadily to business and obeying orders when they were given, regardless of who gave them. The new man made bad breaks, but Connolly always was on hand to help him out, and the two got along pretty smoothly.

One day a better position fell vacant, and the chief clerk, looking around for a competent man, thought of Connolly. He was loyal to his employers.

Lynes went up in the air. He had a grievance before, but it was an insult now. He was as well able to take the job as Connolly. Indeed, he thought he could hold it down better. In addition, the new man had got settled and was beginning to be sharp with Lynes. Lynes refused to do what the new man told him. He was reported to the C. C., and the C. C. got him up on the carpet.

After that, Lynes didn't have any use for the road. He drew his salary, and only did what he absolutely had to do.

One night he had gone off a little before closing time, and was standing on the corner waiting for a car, when a stranger asked him the way to the B. and D. Building.

Lynes told him how to get there, and added that it was the worst road in the country. The stranger naturally wanted to know why, and Lynes began to tell him about the awful delays on the line, the wrecks, and the rotten service.

He painted such an awful picture that he got the stranger interested. Incidentally, he let drop the fact, to show that he knew what he was talking about, that he was in the superintendent's office. That settled the stranger.

An employee of the road certainly ought to know if it was dangerous to travel on. He thanked Lynes and struck out for another route.

About a week after that a letter came down from the general manager's office through the general superintendent to the superintendent. It created a good deal of excitement around Connolly's desk. About quitting time, Connolly called Lynes over and handed him the letter. It read:

> About four days ago I met a Mr. Frisbie in New York, a member of Frisbie & Co., big cotton exporters. Mr. Frisbie had sent a very large shipment of cotton over the P. F. R. R., and I asked him if he could not give us a share of this business.
>
> He told me that he had considered doing so on this shipment, but that he had learned from an authoritative source that the delays were so many on the B. and D. that he could not afford to risk it on his shipments, as they invariably called for connection with steamers sailing on set days.
>
> I asked him what this source was. He was reluctant about answering, but I finally got him to state that seven days ago he had been in Baltimore on business, and accidentally met a man in the superintendent's office who gave him this information.
>
> I challenged his statement, and he said it could be readily confirmed, as the man who had told him this was on the train reports, and thoroughly familiar with our traffic.
>
> I suggest that action be taken to remove so disloyal an employee. In this instance his lying statements, if Mr. Frisbie was truthful, have lost us thousands of dollars in business.

The letter was signed by the freight traffic manager. At the bottom was written, in savage strokes of a pen:

> Discharge this man at once, notifying us of his name.—J. D., GENERAL MANAGER.

For an instant everything swam before Lynes's eyes. He had to grip hold of the desk to remain standing. The chief clerk looked up at him. He gulped once or twice, and tried to speak, but his voice was lost. It was only too evident that he was guilty, and the chief clerk knew it.

Lynes got his discharge on the spot.

There wasn't a railroad man in town who didn't hear of his disloyalty, and when he applied for work he was promptly turned down. He had a wife and child to support, and things must have gone hard with him, for the year after that there was one of depression, and work was as hard to get as green corn in winter.

It was just about ten years ago that he came back to the B. and D. His hair was gray, and he was dressed like a tramp. The chief clerk had been promoted right along, and at the same time Connolly had gone along with him, until one was general superintendent and the other his chief clerk.

Lynes put up such a hard-luck story

to his old friend Connolly, now C. C., that Connolly finally managed to give him a little odd work around the office. His wife had died of starvation, and his child—the less said of the girl the better.

Then the general superintendent was promoted to be general manager, and he took Connolly along with him as chief clerk. You know them well. The G. M. is T. F., and Connolly is one of your bosses.

Some fellow with pull is always being put ahead of some fellow who thinks he has merit.

What good is it going to do the second man if he goes off the handle and quits? He's out of a job then, and practically has to begin all over again. If he'd stick, the day would come when he'd be the one man to fit in a pinch, and you bet your flues that there isn't a railroad that will pass him up.

Keep cool—and keep busy.

Your affectionate FATHER.

HE GOT HIS THROUGH CAR.

Although an Immigration Agent's Contract Wasn't Good, the Ohio Railroad Commission Helped Him Out.

J. P. TAFT is a Canadian immigration-agent, and if he doesn't get all that belongs to it for any party of immigrants he happens to be conducting he wants to know why. Recently he was convoying a party from Wheeling, West Virginia, to Alberta, Canada. He bought through tickets to Detroit—twenty-two of them—*via* the Baltimore and Ohio to Columbus, thence on the Hocking Valley to Detroit.

The Baltimore and Ohio train arrived at Columbus at 3.45 A.M., and, according to a definite understanding Mr. Taft had with the company, its car, with the immigration party, was to be attached to the regular 4.45 Hocking Valley train out of Columbus. But even immigration-agents have their troubles, and this nice little program was not to be.

The Hocking Valley officials were very sorry, but there was a trifling consideration in the shape of the Interstate Commerce Commission between their insistent patron and their really obliging selves. Mr. Taft had twenty-two through tickets, but to get a through car he must have twenty-five. Otherwise, both he and the Hocking Valley would be in trouble.

That sounded formidable, but it didn't feeze Mr. Taft. He said his verbal contract called for a through car. He had in his care several babies, whose innocent young lives should not be endangered by changing cars at such an unearthly hour, as well as an old man, whose gray hair he would not bring down in sorrow to another car.

He would either have his car taken out on the 5.45, or he would rouse from their beds the railway commissioners of the State of Ohio to give him his rights; better that four mere railway commissioners should lose sleep, catch cold, and die, than that one immigrant, a prospective citizen of Canada and the British Empire, should change cars.

At this the Hocking Valley officials brightened perceptibly. They told Mr. Taft to go ahead and do his worst to the railway commissioners; they wouldn't hinder him. So down the street went Mr. Taft, and received the shock of his life when he found that the railroad commissioners were already about, and, in fact, were just preparing to take a train for Dayton to transact some official business.

The sight of such devotion to duty gave him hope, especially when he learned that one of the commissioners, Mr. Sullivan, was newly appointed. He knew that Mr. Sullivan would be zealous. Mr. Sullivan was. Also, he proved himself to be very diplomatic, soothing, and efficient.

He went with Mr. Taft, and in a remarkably short time a deputation of Hocking Valley officials was on its way with money in its pocket and charity in its heart to buy coffee and other things for the waiting immigrants. Another deputation, with Mr. Taft's cheerful approval, was cleaning out and preparing for their use a nice car, more comfortable than the one they had, which was to be backed up to their own car, so that they would not even have to step down the steps to make the transfer.

It was as simple as losing money, and soon Mr. Sullivan was departing, leaving gratitude in the hearts of Mr. Taft, the immigrants, and the Hocking Valley officials. The gratitude of the latter, however, was as nothing to their relief when they saw the coach of those departing immigrants disappear on the next train out.

ON THE EXCITEMENT SPECIAL.

BY F. H. RICHARDSON,
Author of "Oh, You Buttinsky!"

Fatty Takes Her Out, with Bill at the Shovel, and—Well, Let Bill Tell It.

"BILL, I hear you are a sure-enough, dyed-in-the-wool hero," remarked the engineer as he climbed into the cab, a clean suit of overalls under his arm.

"I dunno about th' hero end of it, but they's one thing I can tell you without any stutterin'."

"And what is that, Bill?"

"That I've had all th' excitement I'm hankerin' for, an' I don't want no more go-rounds with train-robbers now, hereafter, an' forevermore!"

"Tell me all about it, old man," said the engineer, seating himself comfortably to listen. "From what I've heard, it was a pretty hot proposition, all right."

"Say, you're on th' main line, sure enough! Hot? It was so hot that I won't need a fire t' keep me warm for some consid'able spell, I'm thinkin'.

"Y' see, it was this way. When you said you was a goin' to lay off las' trip, I doped it out that I'd take a rest, too; but the hoodoo that rides straddle of my shoulders when I'm awake an' sits on th' bed-post while I'm sleepin' got busy an' set me figgerin' how you'd only be off one trip an' how much I needed th' coin t' keep up my end with Sue.

"Of course, after I'd rolled that dope aroun' in th' sawdust up in th' top of my head for a spell, I concluded t' stay with it. Anybody but me 'ud 'a' had sense enough to 'a' layed off; but you can bet your next month's pay-check that if they's any trouble closer than th' moon, I'll be in th' exact geographical center of it with my hair in a braid.

"When you layed off, Fatty Burns, bein' first out on th' extra-board, drew th' trip for his particular prize. But I'll bet forty-seven dollars against a plug of kill-me-quick that he's busy right now wishin' it 'ud 'a' been th' night shift on th' leakiest, ornerest old switch-engine in the Chicago yards.

"Fatty's a good enough throttle-pusher, all right; an' I ain't got no kick on him, only he ain't got no sense, an' he's always buttin' into trouble jus' like me. Two hoodoos on one measly old tub of an engine at one time is too much. It's sendin' out a special invitation to trouble, an' sendin' it by telegraph at that.

"They wasn't much happened on th' down trip, excep' a little fairy tried t' make a mash on me when we stopped at Gainsboro, an' I was so busy preventin' her that I didn't see th' signal t' pull out, an' got a callin' down from ole Fuzzy Whiskers, th' con.

"He come trottin' up th' platform, puffed up like one of them bladder balloons, an' handed me a bunch of compliments that made th' fairy hop up th' street with both hands over her purty little ears. Ole Fuzzy can sure hand out a bundle of red-hot language when he gets real mad. But I got even with 'im—believe me."

"How did you do that, Bill?" inquired the engineer.

"Easy! When we pulled out I leaned out of th' gangway an' yelled at 'im to go back an' knock down a couple more dollars, an' he'd feel better. Say, he tried t' bite a chunk out of th' baggage-car as it went by, an' he was so busy shakin' his fist at me that he near forgot t' get on th' train.

"FATTY AN' ME RUBBERS AROUN' AN' GAZES INTO TH' MUZZLES OF A COUPLE OF INFANT CANNONS."

"Well, comin' back we was flirtin' with th' landscape at th' rate of about fifty-five per, just this side of Oakley. Everything was runnin' as smooth as a new air-pump, an' th' trouble-train 'peared t' be backed clean off th' map when things began to happen; an' they kep' on a happenin' some more swift than this particular coal-pusher wants t' see 'em ag'in.

"Sue an' me hadn't had a scrap for more'n a week, an' things was gettin' so calm an' slow that I was jus' sayin' to Fatty I wished they would something bust loose an' stir 'em up an' sorter make life worth livin'.

"Say, talk about answers to your prayers! I hadn't more'n got th' words out of my grub-trap when somebody yells, 'Hands up!' an' Fatty an' me rubbers aroun' an' gazes into th' muzzles of a couple of infant cannons, backed by two plug-uglies who was roostin' on th' coal back in th' tank.

"They didn't a'pear t' be no absolute necessity of havin' a pencil an' a pad of paper t' figure out what sort of a game we was up against. Neither me or Fatty had th' least idea they was a couple of members of th' Salvation Army, or even friends droppin' in for a quiet talk.

"I'll swear, though, bad scared as I was, I nearly had to laugh when I looked across at Fatty. He turned his head when th' gentle request t' elevate our fingers come, an' started t' say, 'What th'—!' But jus' as he got half of th' second word out he caught sight of the artillery, an' his face sorter froze up, an' there he sat for about half a minute.

"Say, you could 'a' hung a couple of towels up on his face just as easy, usin' his eyes for nails!

"Th' missionaries of peace climbed down over th' coal-gate an' made their début into th' cab, pokin' their armament right up under our noses jus' t' show they was nice, civil, well-disposed chaps that wouldn't hurt nobody, except by mistake.

"Say, did you ever examine th' business end of a gun real close when it was

in th' hands of th' enemy, th' hammer drawed back an' the finger of a real, live, eighteen-caret, dyed - in - the - wool train-robber toyin' with th' trigger?"

"No, Bill, I cannot say that I have," replied the engineer. "Did you enjoy the experience?"

"Huh! Not so's you could notice it! That big blunderbuss kep' growin' an' swellin' up till it filled th' whole back end of th' cab. Th' hole in th' end of it looked as big as a spike-keg, an' I could almost see th' bullet comin' out t' bat me one.

"Well, one of 'em continues his delecate attentions t' me, while th' other makes Fatty shut her off an' put on th' air, persuadin' him gentle-like by rubbin' th' business end of th' howitzer ag'in, his neck just under his west ear.

"I could see Fatty didn't like th' feel of th' thing any too well, for he kep' edgin' away an' jerkin' his head forward a little at a time, like he was bowin' t' some one real polite.

"'Say,' says Fatty pretty soon, jerkin' out his watch, 'number eight is due at Carbondale in twenty-six minutes, an' we meet her there. She has right of track, an' if we ain't there on time she'll come—'

"'You shut up yer talk-trap an' get this train stopped,' snarls Mr. Robber, 'if you ain't hankerin' t' be a candidate for wings real sudden. We don't care a wormy-apple core about number eight or anything else but th' coin in that express-car, an' we're goin' t' have that—see? If number eight comes along an' butts you off th' right of way after we're through, that's their lookout an' yours!'

"Gee! When that blasted bulldog-faced disgrace t' th' human race said that, I'd 'a' been willin' t' 'a' took a durn good lickin' t' 'a' pasted him one right square on th' end of his ugly nose; but th' trouble was he'd most likely have blowed th' top of my dome off before I could 'a' landed on him, an' what good 'ud I be with a tunnel through my thinkin' arrangements?

"Well, when Fatty got her stopped some more of th' gang that we hadn't been favored with a call from yet uncoupled th' express-car, an' then they made us pull ahead about half a mile, emphasizin' th' request by playfully pokin' Fatty in th' ribs with a baby cannon.

"Fatty spent his time between edgin' away from th' artillery as far as he could an' swearin' under his breath. I couldn't hear him, but I know by th' look on his face he wa'n't reciting poetry or practisin' baby-talk, even if there is a new kid jus' come to his house.

"When we got stopped again, one of th' amateur coin-collectors lit th' engine-torch an' got down on th' ground, his pardner herdin' Fatty an' me after makin' me take th' coal-pick along.

"Th' express-car didn't have no door in its front end, an' when we arrives at th' hind end they was two more get-rich-quick financiers waitin' for us. One of 'em makes th' fact known real quick that he's president of th' Robbin Steel Company.

"'Get a move on, you fellers,' says he, like a bulldog growlin'. 'What'd you think this is, anyhow—a funeral or a pink tea?

"'Hey, you inside th' car!' he yells, 'th' engineer's goin' t' bust in th' door of your old cracker-box. You can shoot all y' want to, but y' won't hit nobody but him,' all of which must 'a' been mighty interestin' news t' Burns an' th' man inside th' car, I'm thinkin'.

"Well, th' feller grabs th' coal-pick an' gives it t' Fatty, an' he steps up real prompt, as if he was goin' t' obey orders like a little lamb.

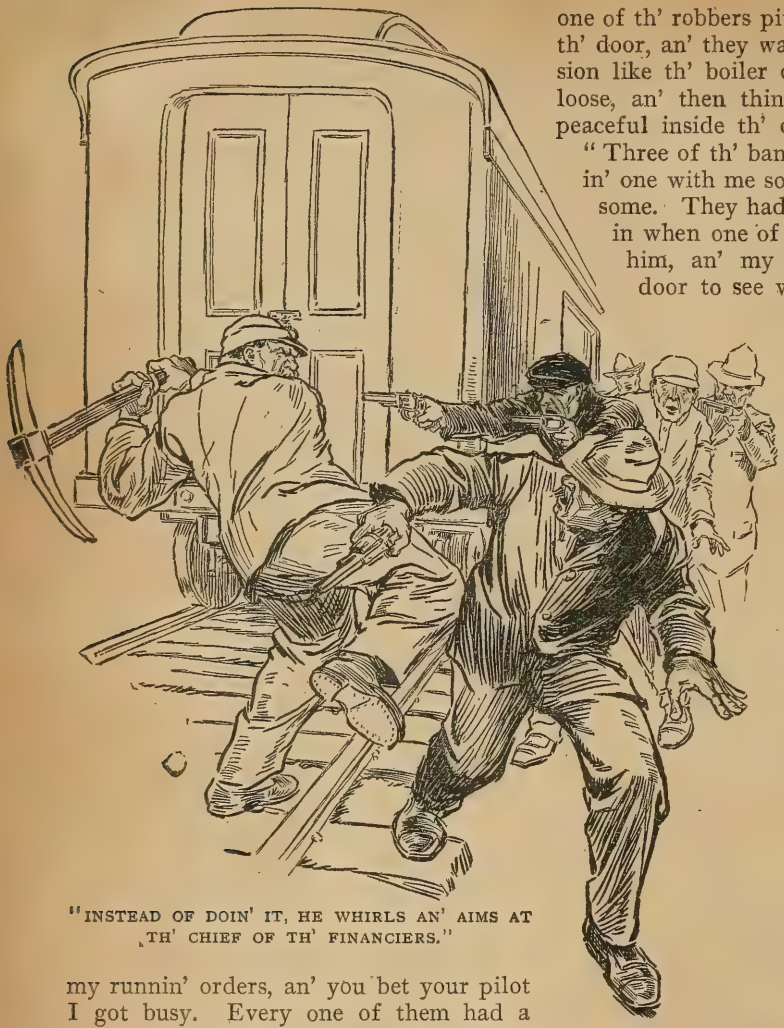
"They ain't no platform on them cars, you know, an' a man could stan' right on th' ties an' paste the lock of th' door.

"Fatty raises th' pick t' hand th' door one; but, instead of doin' it, he whirls an' aims at th' chief of th' financiers.

"Th' feller dodged, an' he missed 'im slick an' clean, an' durn near busted th' head of th' pick off th' handle when it come down on th' rail. It was a fool thing t' do, for, even if he'd 'a' laid out th' one he aimed at, they was three more of 'em with guns in their fists an' him with a coal-pick an' me with nothin' but my finger-nails t' fight with.

"Say! They was three pistol - butts made connection with Fatty's dome before th' pick hit th' ground, an' he dropped like a ten-wheeler fell on him. I sure thought they had put out his headlight for good.

"It took 'em jus' three-fifths of a second t' present me with th' coal-pick an'



"INSTEAD OF DOIN' IT, HE WHIRLS AN' AIMS AT TH' CHIEF OF TH' FINANCIERS."

my runnin' orders, an' you bet your pilot I got busy. Every one of them had a Gatlin' gun in each hand, an' they was all pointed right square at your humble fireman.

"Say! I'd 'a' looked like a colander if they'd 'a' gone off! I was scared mad an' feelin' bad about Fatty, an' between th' three I was carryin' about all th' pressure I'm guaranteed for.

"It took jus' three licks t' bust th' lock of th' door, an' with th' last one the head of th' pick broke off, leavin' most of th' handle in my hands. I jumped back as th' door swung open, thinkin' th' messenger might accidentally send a few bunches of lead through, an' I didn't make no mistake. He sure lost no time in openin' up with his heavy artillery.

"It didn't do him no good, though, for one of th' robbers pitched something in at th' door, an' they was a flash an' a explosion like th' boiler of th' engine had let loose, an' then things was all calm an' peaceful inside th' car.

"Three of th' bandits climbed in, leavin' one with me so I wouldn't get lonesome. They hadn't no more than got in when one of 'em lets a yell out of him, an' my man rubbers in th' door to see what's doin'.

"Say! I had th' handle of that pick in my fist yet, an' I jus' handed th' gentleman a tap on th' dome with th' butt-end of it an' sprinted for th' engine. I'll bet th' dirt from my shoes went clear over th' express-car, an' I guess I hit th' ground three times between th' back end of th' car and the gangway.

"She had a big fire in when Fatty shut her off at th' request of our friends, an' she was still poppin' t' beat th' band. I chucked th' lever down in th' corner, opened th' sand an' pulled her wide open. She never slipped a turn, an' th' way she yanked that express-car ahead was a sight.

"I hustled a fire into her, an' by that time she was sendin' th' skyrockets a hundred feet above th' stack, an' things was beginnin' t' hum.

"As near as I could guess, we was nine miles from Carbondale, an' I had jus' seven minutes to make it; an' you bet I was doin' some tall guessin' 'long about that time of th' night."

"I'll bet there was a surprised lot of men back in the express-car," remarked the engineer.

"Yep, they sure was. The messenger told me all about it when I went out to th' hospital to see him to-day. It was a

dynamite cartridge th' whelps threw in th' door, an' it knocked him silly, besides breaking one of his wings."

"Wings, Bill?"

"Arm, Mr. Innocence! A-r-m, arm. It's a wonder you don't have t' have a map t' get over th' road with!

"As I was sayin', it knocked 'im out for a minute an' broke an arm, an' when he got back on th' track th' three captains o' finance was in th' car, all ready for business, an' had impounded his gun for a starter.

"When I got t' th' engine an' yanked 'er open, he says it jerked th' whole outfit off their feet an' rolled 'em in a heap. By th' time they got up an' made up their minds what had hit 'em we was goin' so fast they couldn't get off.

"They was jus' wild, he said, an' one of 'em leaned out of each side door an' begun t' bombard th' engine, while th' other one—th' chief—chopped a hole in th' front end of th' car. They was a lot of iron rods, though, an' he couldn't make it big enough t' crawl through; but by gettin' up close t' th' top he could see over th' tank into th' cab an' pump bullets into it.

"I had her hooked up in six inches an' th' throttle wide open an', what's more, she stayed that way until we sighted Carbondale.

"Run! Say, a streak o' lightning with a tin can tied t' its tail wouldn't 'a' been in it with us.

"I was leanin' out of your window, wonderin' whether I'd be a fireman or an angel in five minutes more, when *bing!* something took a chunk out of th' cab, an', lookin' back, I saw one of th' express-car passengers leanin' out of th' side door, aimin' his cannon right at me an' swearin' like a pirate.

"I jumped over t' th' other side, an' th' same identical performance was bein' pulled off there, too. I didn't lean out of no more windows, you hear me! Willie kep' right in th' exact mathematical center of th' deck, you bet."

"Why didn't you stop and go ahead and flag number eight?" asked the engineer.

"Huh! How long d' you reckon I'd 'a' lasted if I'd 'a' stopped this old tub an' 'a' give them gents a chance t' get at me? They wa'n't puttin' in any of their time lovin' me jus' then, mind you."

Properly abashed, the engineer subsided. "You are right, Bill. Go ahead with the story."

"Betcher life I'm right, an', what's

"TH' THREE CAPTAINS O' FINANCE WAS IN THE CAR, ALL READY FOR BUSINESS."

more, I'm alive, an' that's a durn sight more'n I'd 'a' been if I'd 'a' pulled off any fool stunts like that. Th' old girl was beginnin' t' take th' curves, runnin' mostly on one side, an' I could see th' roof of th' express-car wabblin' aroun' like it was crazy. I was jus' goin' t' ease her off a little when, *bing!* something hit th' boilerhead beside me, an' lookin' aroun', I saw a hole in th' front end of th' car near th' roof an' one of them blunderbusses spoutin' fire an' lead like a volcano gone crazy.

"Willie took one look an' dropped down behind th' coal-gate out o' range. I didn't dast to raise up after that, an' had t' put in th' fires on my hands an' knees."

"Getting pretty warm, wasn't it, Bill?"

"Well, they did 'pear t' be some set on gettin' Willie's goat, an' that's a fact. Cheer up, though, th' worst is yet t' come.

"Th' infernal chump kept pumpin' lead into th' cab, an' pretty soon one of his bullets broke th' water-glass; an' then, you bet, I said my 'Now I Lay Me.' She was a jumpin' around th' curves like a circus-horse in a ring, th' coal rattlin' down through th' coal-gate until it was clear out on th' deck, th' cab full of steam an' boilin' water, an' th' landscape, what little I could see of it through th' gangway, goin' by in a solid streak, an' th' bullets pingin' th' boilerhead an' cab!

"Oh, it was a red-lemonade picnic, all right, all right. But Willie ain't lookin' for any more of 'em real soon.

"I'd got her goin' all right, an' she was sure goin' some, too; but, supposin' she stuck to th' rails until we got to Carbondale, *how in thunder was I goin' t' get her stopped?*

"Th' apostle of peace was keepin' th' air full of bullets; an' if I raised up t' shut 'er off an' put on th' air, I'd stan' a fine, large, fat, juicy chance of stoppin' a pound or so of lead, which might upset my digestive machinery.

"Then, to add to th' pleasure of th' occasion, th' steam from th' busted water-glass filled th' cab, so I couldn't see a thing, or even see enough outside t' tell where we was; though, judgin' by th' speed, I was calculatin' we ought t' be at least half-way across th' United States.

"I couldn't even see my watch, an' was jus' beginnin' t' hold my breath, waitin' for th' smash, when we met number eight, an' was wonderin' how it 'ud feel t' be ground up into sausage, when one of the blitherin' robbers did th' only decent stunt they pulled off all through th' mess. He busted out th' glass in the front cab-window on your side with one of his lead pills. Th' steam blowed out of that side of th' cab, of course, an' give me a chance t' do something. They was a piece of bell-cord behind your seat-box, an' keepin' down low, out o' range of th' bombardment, I got it out an' made a slip-noose on one end.

"Then I took a chance, an' raised up an' slipped it on th' whistle-lever an' pulled th' thing wide open. I tied th' other end of th' rope t' th' coal-gate.

"Say, th' net results was sure a peach! As th' tank 'ud bob up an' down, it 'ud wabble th' whistle-lever along with it. Th' durn'd thing sounded like a steam calliope gone plum' ravin' crazy.

"Just as I got that done I seen th' Carbondale mile-board go by like a ball out of a cannon. It was then sure up t' me t' do something real sudden unless I wanted t' introduce myself an' a lot of other folks t' th' hereafter in a minute.

"Th' bullets was still a plumpin' in. I guess that robber chap 'ud gone clean batty, an' didn't know a thing but trigger-pullin'. Reachin' up with th' coal-pick handle, I managed t' get th' throttle shoved in; an', after pluggin' at th' air-handle with lumps o' coal, I hit it a smash an' knocked it clear round to emergency.

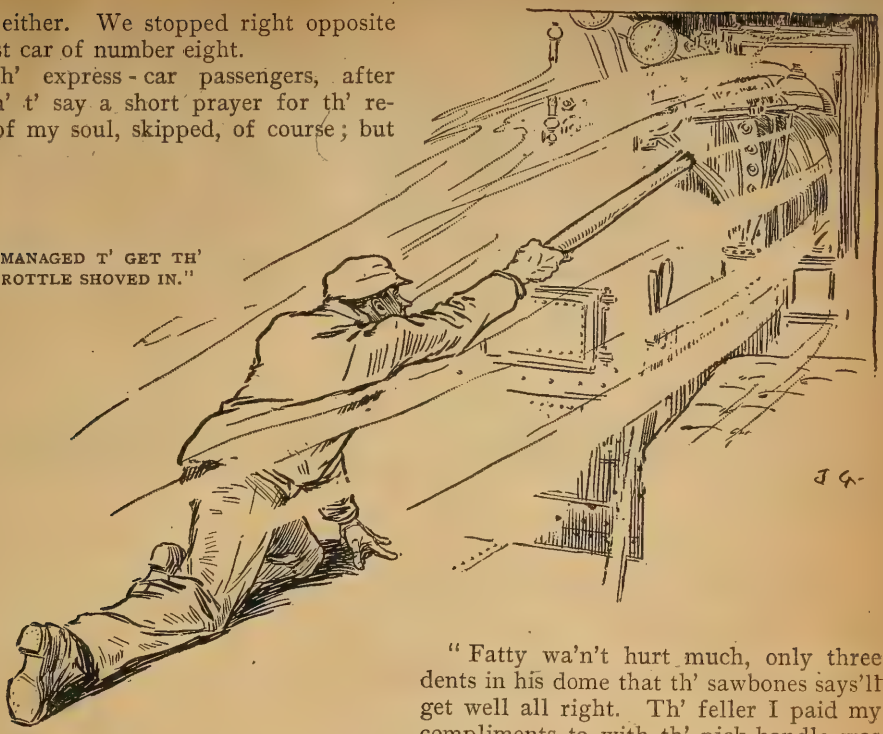
"Pretty soon they was a slappity bang, smash—an' she rolled over t' one side, like she was goin' t' turn over at least half a dozen times. Afore I knowed what had happened, she was standin' still as a pet lamb, an' folks was crowdin' into th' cab an' askin' questions at th' rate of fifty-two to th' second.

"Y' see, number eight happened t' have a passenger for Carbondale, an' for th' first time in a month stopped at that town. Just as they was pullin' out, th' eagle eye caught a glimpse of my head-light an' heard th' tune th' tank was playin' on th' whistle.

"He s'picioned they was something unusual comin' off, an' had sense enough t' stop again an' have his fireman skip down an' throw th' switch for th' side-track—an' he didn't do it a second too

soon, either. We stopped right opposite th' last car of number eight.

"Th' express-car passengers, after pausin' t' say a short prayer for th' repose of my soul, skipped, of course; but



"I MANAGED T' GET TH' THROTTLE SHOVED IN."

th' sheriff got 'em afore daylight, an' th' coin was safe, all right, all right! Mebby th' express company'll come in with a check for ten dollars after a while. Wouldn't surprise me a bit.

"Fatty wa'n't hurt much, only three dents in his dome that th' sawbones says'll get well all right. Th' feller I paid my compliments to with th' pick-handle was still peacefully sleepin' when we got back t' th' train, an' th' sheriff gathered him in an'—there you are.

"It's time we was gettin' this old mill ready for some slower runnin' than that she done last trip, I'm thinkin'."

A NEWSY WHO KNEW HIS BUSINESS.

TIMSON had for nearly an hour been in the smoking compartment, while his wife had been permitted to sit alone at the rear end of the sleeper. At length he sauntered back and sat down beside the lady, saying that he wished the first call for lunch might soon be given.

Then he noticed that his wife was concealing something between herself and the side of the car.

"What have you got there?" he asked.

"Sh-sh," she replied, looking around to assure herself that she would not be overheard. "It's a book. The news-agent came through a little while ago, and he had this hidden under a lot of other things. I don't know why he thought he could trust his secret with me, but he did. We must not betray him."

"Let me see it."

"No, we mustn't show it here. Somebody might notice it, and the boy would get into trouble.

"He told you the railroad company had given orders that no more copies of it were to be sold on the train, didn't he?"

"Yes."

"And said it was terribly sensational?"

"Yes, it's a story we must be careful not to leave around where the children can get hold of it."

"It was the last copy of the book he had, too, wasn't it?"

"Yes. How do you happen to know so much about it?"

"He sold me one, too," said Timson, slipping his copy out from under his coat.—*Illinois Central Employes' Magazine.*

The Evolution of "Almost."

BY HORACE HERR.

3.—THE RIGHT TO SIGN ORDERS.

Through Showers of Cinders and Fireworks, "Almost" Works His Way to the Throttle, Making Many Errors, But Winning by Natural Efficiency.

ANY fellow who has endeavored to pick a living off a crowded extra board knows that it's like trying to make a full meal off of spareribs. Fortunately for me the oranges began to roll east about the time I gave up the honor of being the most important celebrity in Hulbrook.

At such a time, if a fellow even looked as if he might know how to operate a wheelbarrow, he had to be blind in one eye and cross-eyed in the other, or he was pressed into service.

Then, too, the road was putting down fifty miles of ballast over on the mountain, and five crews were busy there all the time. Work-trains in Arizona are about as popular as the penitentiary, and all the old crews were glad to make a little less money in chain-gang.

It seems as if, years and years ago, long before Bill Bryan first ran for President, the cliff-dwellers must have had a big flat on Bill Williams's mountain, and kept dumping their ashes out the back way, until they built a cinder-pile which made Bill Williams's peak look like an ant-hill.

Prehistoric Cinders.

This mountain of cinders has furnished the ballast for about five hundred miles of track, and there's some mountain left—enough to make a fellow shudder at a cliff-dweller's coal-bill for one season.

Well, in sprinkling these cinders along the right of way, one work-train was needed filling cars at the pit, three crews were used in hauling the loads to the stretch of track being improved, and the fifth crew operated the cinder-plow and the unloading.

Of course, after having had six months of nerve-twisting excitement in Hulbrook, I was highly elated, when one night, about four in the morning, the call-boy informed me that I was "it" for an extra west.

He cheerfully volunteered the pleasant information that we were going out to relieve the crew which had been serving a two-weeks' sentence unloading cinders.

At that particular time the unloading was going on along a stretch of track where a man was once seen standing by the right-of-way; but that was a long time ago, and you couldn't bank on any such excitement in the next ten years. There was a station out there called Sunshine, well named, too, for the only way to get away from that same everlasting sunshine was to crawl under a car.

THE CLIFF-DWELLERS MUST HAVE HAD A BIG FLAT ON BILL WILLIAMS'S MOUNTAIN.

After you had been in Sunshine for a day, Hulbrook looked like Kansas City at six o'clock in the evening. A fellow got so lonesome out there that every now and then he would go out and flirt with the switch-stand.

There wasn't even an operator, for the unloading crew always carried an operator-brakeman, who would cut-in whereever the crew happened to be working.

But there was one thing about it that made me feel a little better. When I came out of the despatcher's office, after signing up and registering my watch, and walked down in the yards, where a Baldwin hog was coupled to a caboose, I found Almost there waiting for me.

I suppose the old man figured that since I insisted that he be given a brakeman's badge, I would be willing to break him in—and I was. The other shack was a fellow by the name of Joe Magirl.

Joe learned his over on the Denver and Rio Grande, and when it came to shuffling the cars, tying them down by hand, putting in a brass, or chaining them together, Joe was there like a whistle. He had worked as an operator for several years, been a conductor several times, and I think he was trainmaster once on the Squedunk Central, or some other jerk-water pike.

He was sure an old head, best-natured fellow you ever saw, and I guess Almost

couldn't have found a better fellow to put him next.

Almost was jubilant. But eighteen hours later it was different.

When Grit Meets Grit.

Plowing cinders off a string of flats all day, with the heat registering 121 in the shade—minus the shade—switching the empties in on a siding and the loads out, comes as near being a picnic as an Arizona cactus does a mattress. Just the same, it was the makin' of the pup, and after the first day out Almost knew the difference between a go-ahead and a stop-sign.

In railroading every day is just like every other day, with something different. We put in a week unloading cinders, until the whole crew looked like cinders, before we were finally ordered over to the Cinder Pit.

At the Cinder Pit a fellow could get a real meal and something which resembled a bath. The next week we went to hauling to and from the pit, and for Almost, at least, things began to grow exciting.

The first evening we were making a late haul, so that the unloading crew would have something to do the first thing in the morning. We were dropping down a mountain grade a few minutes ahead of a passenger-train, and if everything had gone all right we would have been all to the good.

Almost's Assignment.

They hadn't more than started to roll well when one of those mountain showers set in, and about the same time the hog-head began to bellow for brakes. That grade is forty-one miles long, and going down there is but one place where a car won't start of its own weight.

Of course, Magirl got awful busy with a club, and knowing that climbing from one cinder flat to another was no work for a student, I left Almost in the caboose, with instructions to look out for the headlight of the passenger-train following us, and if they showed up to drop a fusee.

Then I went out to see what I could do at twisting a few. They had a good start, and our only hope was to tie them down when they hit the one hog-back, about ten miles on.

We hadn't gone a mile before the reflection of the headlight from the passenger-engine began to show behind us, and when I looked back there were at least three fusees lying back along the track, sputtering merrily.

We had dropped down another mile, and the passenger was showing up, ten miles back at the head of the grade; and if there were any more red lights in the caboose it was because Almost couldn't find them. A string of red-fire that would have been a winning feature in a Fourth of July celebration in any city was staked out behind us.

Private Fireworks.

It's an even bet that when the eagle eye tipped over the grade, and saw that string of red-fire staring him in the face, he put the trunks in the front end of the baggage-car. I couldn't go back over a dozen cars of cinders and tell the boy to quit dishing out the celebration, for I was mighty busy right where I was.

When we hit the hog-back it was as plain as the nose on your face that the cars were not going to stop. I knew that we would be some more busy before we got to Falstuf, at the bottom of the grade.

They were all tied down as tight as one man could tie them. In fact, I had begun to fear that a wheel would heat and break, and we would save any one the trouble of unloading that bunch of cinders.

I climbed over to a side stake, and leaned out just as we hit the hog-back and looked back toward the caboose. I saw the prettiest exhibition of fireworks I ever witnessed. First I saw a white and red light in the caboose door, then they shot out toward the ground, and then they shot up again in a beautiful semicircle, and all was darkness.

Devotion to Duty.

Almost's idea was fine, but his execution was poor. That headlight behind him kept getting bigger and bigger, until he decided that it was time to drop off an' flag. He dropped.

He not only dropped, but he rolled—about twenty feet down a cinder-bank, and into the only mud-hole along the whole system. He told me afterward that

he couldn't find his lanterns after he made the slide, but before severing his connections with the caboose he had loaded himself down with fusees and torpedoes.

Old Jim Evans was pulling the passenger, regular No. 10, that night, loafing along right on the schedule until he caught up with that crop of fusees. We made Falstuf all right, except that there wasn't a wheel on the train but what would have fried eggs, and were in the clear a good ten minutes before Evans brought No. 10 to a stop, with the engine opposite my caboose, and lost ten minutes telling me about it.

Jim was one of those fellows who took living as a part of life. Nothing ever upset his good-nature.

Of course, I fully expected him to hand Almost down from the cab a total wreck, but, instead, Almost climbed down from the deck alone, while Jim looked down with his perpetual grin. At first I didn't realize that it was Almost.

He had all of the southwest quarter, of the northeast half, of the east section of range ten of the State of Arizona wrapped about him. He had enough cinders mixed in to ballast the New York Central from end to end, and beginning at his revolver-pocket, and ending just above his hock-joint, there was a great deal of nothing in the way of clothing.

He looked as if he'd gone to a finish catch-as-catch-can with a buzz-saw. I held my lantern up so that the light revealed the details. The grin was about the only thing I recognized.

"He almost got into us," remarked Almost, by way of breaking the silence.

Scaring the Passengers.

"Almost!" echoed Jim, with a chuckle. "I was five miles behind you when I tipped the grade, and your tail lights were the biggest thing this side the Grand Cañon. If I'd been blind and deaf and dumb I couldn't 'a' got by the fireworks and the dynamite.

"When we hit Dewey's fleet back there I'll bet every passenger on the train hid his money. Reckon everybody in the sleep's in an upper berth. Wonder the whole train wasn't blowed to kingdom come.

"I guess there hain't no danger of any one hitting that dog-house of yourn as long as you've got that lookin' out for it.

IF THERE WERE ANY MORE RED LIGHTS, IT WAS BECAUSE ALMOST COULDN'T FIND THEM.

Well, so long, fellows. Glad no one's hurt.

"All in a lifetime. Have to drag them along a bit now or the old man'll want to know if the 1180's got the rheumatics."

When we went over the train we found that the air had not been cut in behind the engine. Almost learned right there one lesson that I know of.

About midnight we tied up, cold and tired, and I guess Almost more than that. After I had turned in I heard Almost and Magirl talking out in their end of the caboose.

INTO THE ONLY MUD-HOLE ALONG THE WHOLE SYSTEM.

"Hurt you any?" asked Magirl. "Have I hurt you any?"

"Not a bit," answered Almost, and then, after a pause: "Say, Joe, I'll have to go back there to-morrow."

"What for?" from Joe, who showed signs of a lack of interest.

"I lost my badge and the rule-book. Say—"

"Oh, fergit it!" replied Joe, and the next noise sounded like a snore.

But every trip did not prove so strenuous for Almost. Of course, there were those little times of pleasure when he had to drag a chain or put in a few brasses. There were times when cars took to the country, and we had to carry the frogs from the engine.

Almost's Little Jaunt.

And then there was the time that Almost and three loads drifted down the far side of the mountain, down through the tunnel, four miles of cañon track, over the big trestle, through Fairfield so fast that the operator reported that "one car just went by here," clear down to the Forks, where the flight was suddenly stopped by an open switch, and when they picked him out from the cinders he was still insisting that he "almost had 'em stopped when they left the rail," but such trivial matters didn't touch him.

In fact, we had only been off the work-train a couple of months, doing our lap in chain-gang with nothing more exciting than fighting an occasional fire, until I noticed that Almost was growing pensive. He looked sick, and I suggested that he lay off for a few days and run down to Hulbrook.

He did, and when he came back he cornered me in the caboose and asked:

"Do you reckon I'll ever earn the right to sign the orders?"

"You sure will," I replied, "if you hang around long enough."

"Well, I tell you, Mr. Thomas," and that grin came into view again, "Mag—Miss Mahorney—says as how she thinks I'd be better satisfied if I was an engineer, with wheels to work with, and I guess I'll try to get on a firin' the goat until they'll let me out on the road."

Now Almost never debated matters much, and when he "guessed" he generally made the guess good, and he never went back to my dog-house after that lay-off. Naturally he went out of my line of vision somewhat, but I saw him every now and then, leaning out of the cab-window of the switch-engine, and if the way he was ringing the bell was an indication, he was perfectly happy.

Business got good for yours truly, and with enough seniority behind me, I saw some pretty soft jobs on the division, so I scratched my feet when they itched and kept making the mileage and pulling down the pay-check. It seemed like the longer I worked the better I liked it, and every now and then when I walked over to the engine, I would find Almost swinging the scoop.

A Coming Man.

Gradually I began to take notice of the gossip at the terminal. They said that if there was one guy on the pike who could

keep the needle on the mark, it was that freckle-faced, narrow-gaged, grinnin' and a few other things, Almost.

They said he could calk a flue or set up a wedge or put in a lubricating glass, or anything else around one of those junk piles just as good as any hog-head on the pike, and, of course, I didn't say much, but I took a lot of credit for it.

If Columbus hadn't discovered America, of course we would all be living some place else, and if I hadn't discovered Almost he would still have been holding up the corner of the box-car station at Hulbrook.

It's funny how time flies. You drift into a town and go to work. Sleep a little, eat a little, and work a lot, and wake up to find that you've been hanging around four or five years.

I had bucked the extra board, played the chain-gang, and finally drew a blue suit of clothes and a string of band wagons, before I realized I had been riding up and down that pike for five years.

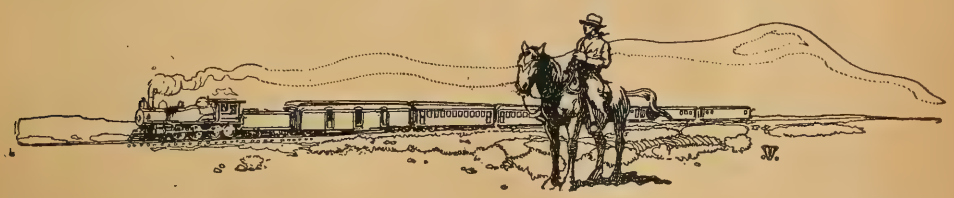
I don't know how the time seemed to Almost, but as I've been forced to remark several times, when he started something he generally was in at the finish. One night the call-boy tried to knock the door off the hinges calling me for special east, soon as possible.

After I had decided that it would be impolite to break the wash-bowl over the kid's head, after I had signed the finger-marked book and noted that there was no engine marked up, after I had yelled to him and asked who the engineer was and he replied:

"Don't know yet. First fellow I can git. Maybe Almost Benson," I say, after that I realized that Almost had set out about five years before to earn the right to sign orders, and I made a mental note of the fact that he had "almost" arrived.

Since that night I've had him on the head-end a good many times and I'm inclined to believe that Maggie Mahorney's advice was good, although there is a chance that there was an element in it which Almost did not recognize at the time. For since Almost has a regular engine, Uncle Sam has a new postmaster at Hulbrook, and Maggie told me herself that one night the new engineer almost proposed, and she did the rest.

(The end.)



AND YET OUR RAILROADS GROW.

IN 1909 the railways of the United States had a capital of $15,000,000,000, which is almost equal in value to the country's entire property at the time of Lincoln's election.

Their gross earnings for a single year, $2,600,000,000, are nearly three times as great as the whole of the interest-bearing debt of the national government.

The 1,500,000 persons on the pay-rolls of the railways of the United States represent a larger force than were under Grant, Lee, and the rest of the Union and Confederate commanders at Appomattox. They are a bigger army than Japan and Russia combined had in Manchuria, when, in 1905, President Roosevelt brought about the peace at Portsmouth.

The wealth of American railroads equals the total wealth of all the Southern States, or Belgium, Holland, and Switzerland combined.

More money will be spent in 1910 in this country on cross-ties than England and Germany will spend on war-ships.

More wealth in coal will be consumed in locomotives than the world's naval powers will spend on war-ships—England, France, Germany, Russia, Japan, and the United States.

The locomotives will cost more than the maintenance of the English army.

The material—mostly from the steel mills—will cost the railroads more than all Europe will spend on armies and navies.

Car and locomotive repairs equal the bondholders' return.

BREAKING THE COMBINE.

BY WILLIAM S. WRIGHT.

When Men Are Bound Together for No Good Purpose, It Is Well To Interfere.

CHAPTER IX.

Landing a Good One.

THE situation was more pleasant from the combine's standpoint, in view of the very excellent report which the two rival newspapers had of the proceedings at the Franchise Club. After a long and heated discussion at the combine, it was concluded that both Leigh and Allen had emissaries whose identity was unknown, but who, nevertheless, knew what news really is.

Burke was furious, and very broadly hinted to the reporters that if that kind of thing was to continue, he personally failed to see the use of a combine at all. The reporters, knowing that Mr. Burke was not in the habit of hinting uselessly in regard to his intentions, felt correspondingly uncomfortable, not only on account of the possible loss of the "snap" that they were enjoying, but knowing, too, that the "boss" was quite capable of blacklisting them in the event of his believing that they had not done their alleged duty by him.

Early that evening Allen called at the fifth precinct station-house. Maloney was again at the desk. The reporter, being a man of direct methods, said:

"And so, sergeant, you did your best last night to have me 'scooped'!"

"What d'ye mean?" growled the man behind the railings.

"Exactly what I say. You kept the matter about the church riot from me."

"'Twarn't on the blotter," snarled the sergeant, "and I'm only supposed to give you fellers what's on the blotter."

"Then, why did you give it to Halstead and some other of that crowd?"

"Look here," said the sergeant, "I ain't responsible to you for what I do and what I don't do. You do your business and then get out. See? But don't you come cross-examining me, 'cause I won't stand for it! Who are you, anyhow?"

Allen smiled sweetly, and in a manner that would have made a less obtuse person than the sergeant feel uncomfortable.

"Who am I?" he said. "Well, you know who I am. But, sergeant, nobody would ever dream who *you* were when they see you on the Speedway behind that mare of yours."

With a nod, he departed.

Two days later there appeared in the *Clarion* an article headed "A Thrifty Police Sergeant." It told of Maloney's life, his real-estate holdings, the approximate value of his personal property, a description of his two horses, and a detailed account of the sixteen charges upon which he had been tried during his professional career.

The article, furthermore, laid stress on the fact that the sergeant's luxuries and holdings were all due to his extreme economy, inasmuch as there were no tangible proofs of his having earned a penny outside of his income as a member of the uniformed force.

There was also a figured estimate of the value of his estate in general, by which it was proven that he must have saved at the rate of about four thousand dollars a year out of an average yearly income of one thousand two hundred dollars.

Then there were pictures of Maloney, Maloney's houses, Maloney's horses and

Began in the March Railroad Man's Magazine. Single copies, 10 cents.

rigs, Maloney in uniform, Maloney as seen at the race-track, and Maloney in his driving costume.

Leigh laughed when he read the article. "You are setting the pace for me, are you, Jimmie?" said he. "Well, I'll see if I can't go you one better."

He followed up the attack on Maloney with more details of that unhappy officer's career.

The next two days passed in a somewhat uneventful fashion. On the morning of the third day, while Leigh was in court, Ahearne quietly slipped a note in his hand. It was to the effect that he would be at the office over the drug-store at about seven o'clock.

The big Irishman was on time, and this is what he told the reporter:

That before court had opened three of the parishioners of Father Podinski had called in order to obtain a warrant for the latter's arrest on charges of felonious assault. Scott, the warrant-clerk, and a protégé of Burke, had taken them into a corner, and, as Ahearne had overheard, told them to come back at four o'clock, when he would see that the warrants were ready.

He also warned them not to talk to the newspaper men. Ahearne, smelling a rat, had subsequently watched Scott, and saw him despatch a note to the Municipal after the court had adjourned at one o'clock. From this he inferred that another attempt was being made to freeze Leigh out.

"But when did the judge sign the warrants?" asked Leigh.

Ahearne replied that not infrequently a number of warrants were signed in blank, it being left to the discretion of the clerk to fill them up in the event of their being needed.

"If that is so," said Leigh, "when do you think that the warrants will be served?"

"Some time this evening," replied Ahearne.

"Do you know any of the complainants, Pat?"

"Wan. He keeps a shoe-store on Saunders Street. His name I don't know, because I can't pronounce it. But I know him by sight, anyhow."

"I tell you what, Pat. Can you spare the time to go with me to-night to the priest's house, and if he is out we'll hunt up your friend the shoemaker. The reason that I ask you to go is that perhaps the shoemaker might suspect that I'm a newspaper man, and wouldn't talk, whereas he would certainly respect such a fine-looking cop."

Ahearne chuckled.

So the couple set out that evening and found that the priest was away from home. From the shoemaker they learned that he had been arrested and taken to a magistrate's house and bailed.

"Where is he now?" asked Ahearne quickly.

The little Pole looked at his questioner with twinkling eyes and replied that he "did not know."

"Then," said Ahearne, tapping his shield, "you'll come along with me and find him," and he scowled ferociously.

At this the shoemaker weakened and confessed that the priest had been bailed out by the proud author of a couple of tiny new additions to the Polack settlement who had counted on a christening that night, and that he was even then engaged in assisting in the celebration.

So he was found, and, being in a jovial humor, gave Leigh a capital story, with "frills," as Ahearne remarked. In fact, it practically "scooped" the combine.

CHAPTER X.

Buckling on Armor.

LEIGH was leaving court the next day when Halstead stopped him.

"Leigh," said he, "can I come and see you at your office this evening?"

"Why, certainly. Anything of a special nature?"

"Yes. But I'll talk to you when I see you."

Leigh felt that, somehow or other, Halstead's request was connected with the Podinski matter, but he was hardly prepared for the actual event.

Halstead kept the engagement, and he talked briefly but to the point. He had, in regard to the Franchise Club story, been practically accused by Jennison and the others of "peaching," and when the Podinski story appeared in the *Clarion* and the *Sentinel*, he was told, in emphatic language, that he was the leak.

At this he lost his temper and declared his intention of quitting the combine.

Would Leigh let him join forces with him and Allen?

"Is this straight, Halstead?" said Leigh, looking at him searchingly.

"I may have my little vices, Billy, but I don't think that lying is one of them," was the reply.

"Settled," responded Leigh. "Glad to have you, but we don't play poker, remember."

And the two men shook hands.

Allen laughed uproariously when he heard the news, and prophesied more defections from the ranks of the combine within the week.

"I think," said Leigh that evening, "that we'll next attend to our friend, the clerk of the seventeenth court. There's nothing like nipping these little conspiracies in the bud."

"But, how?" asked Allen.

Leigh explained that the presiding magistrate was a very close friend of the Lieutenant-Governor of the State. The Lieutenant-Governor was literally an old college chum of Mr. Bevins, for from alma mater days they had been more or less intimately connected socially and politically.

If Mr. Bevins would suggest to the Lieutenant-Governor the advisability of calling the magistrate's attention to the misuse, actual and possible, on the part of the court clerk of warrants signed in blank, and explain why, the issuance of such instruments would be stopped.

"And," added Leigh, "Mr. Clerk will be duly informed by me of the why and wherefore of his calling down."

Leigh kept his word, and things happened as he had prognosticated. But that did not prevent him and his associates from making caustic references to the clerk's action when the priest was arraigned.

The judge dismissed the priest on his own recognizances, and it went abroad in the court that it wasn't well to try to "scoop" Billy Leigh and his friends.

This was hitting the combine another blow.

There was a disposition on the part of certain of the Highburg hospitals to discriminate in the matter of news in favor of the combine.

Leigh remembered that a man in the press-room of the *Record* who had met with an accident had been treated at one of these institutions.

On his return to work, he had complained of the food, sanitary arrangements and methods of some of the doctors and nurses in the hospital. Leigh got the man to make a sworn statement, embodying his grievances. The next time that the hospital showed a disposition to hold back information, the reporter "sprung" the ex-patient's statement on the superintendent, intimating that on the basis of it and similar documents he proposed to call for a searching investigation.

The superintendent, a pompous, panicky little man, was badly frightened.

"You see," said Leigh artlessly, "you won't give us any of the news of this place, so we're going to make some news about it."

The superintendent took the hint eagerly. From thence on, the trio were kept very well informed about hospital doings in Highburg.

"I don't like this business of flourishing a club over the heads of people," said Leigh when discussing the affair with Staynes. "But public news belongs to the public, and when a man or institution tries to keep it back from the public there is only one thing to do—crack him on the knuckles."

The combine began to settle back into its old ways. Its spasm of energy was followed by a reaction. The attitude of the combine was this:

Leigh seemed to be getting the news in spite of its unwonted activity. So what was the use of working, anyhow? The election was coming on, and in the face of it and the recent action of the "big man," the newspapers of the combine would hardly dare to discharge its members.

Besides that, the indications were that Burke and his following would surely succeed themselves; hence, the combine would continue to let Leigh and the others sweat.

The combine would remain the combine, with its game, its rum, its free quarters, and its "bit" when it dutifully held its tongue or opened its mouth.

The one exception to the prevailing or-

der of things was found in the seventh precinct, in which Captain Hendrix held sway, one of the sergeants being his son-in-law.

Hendrix was an old-time policeman, retaining many of the unpleasant features of the days when the man in uniform was usually a bully, armed with a curse and a club.

He was in the station-house when Leigh and Allen visited it that evening, and returned their salutation with something that might be either a response, a snarl, or a growl.

There was a rumor of an elopement in the precinct. Allen turned to the captain and asked him if he knew anything about it.

"It's none of your business if I do," said the commander. "I ain't here to earn your salary for you by sneaking on other people."

"Quite right, captain," said Allen cheerfully. "Of course not. What goes on in your precinct is your business and nobody else's—not even the public's—unless the newspapers make it so."

"What d'ye mean?" said the captain.

Allen turned to Leigh. Leigh shook his head, and the pair departed, leaving Hendrix looking uncomfortable and mystified.

"Why those words?" said Leigh when they were outside.

"Dunno," replied Allen. "I simply wanted to throw a little 'con' into the cap."

"'From small events these huge events arise,'" quoted Leigh, after some meditation. "You've laid the train for an explosion, Jimmie. You have induced thoughts. Don't ask me what it is just now. I'll tell you to-morrow."

To-morrow came and Leigh spent what hours he could spare in certain municipal offices. He held earnest conversations with certain officials of his acquaintance. He took copious notes from official tomes, and that evening he addressed Allen thus:

"I'm going to visit Harrow Street Casino to-night. Will you come along, Jimmie?"

"Anything in the wind?" asked the other.

"Very much," was the reply. "And I'm going to take this along." So saying, he opened a drawer in his desk, produced a revolver and slipped it into his hip-pocket.

Allen looked on with anticipation.

"Guess I'd better carry a gun, too," said Allen.

"It would be wise," replied Leigh.

CHAPTER XI.

Leigh and Allen Cornered.

THE Harrow Street Casino was situated in the heart of Highburg, on a short side-street, the termination of which connected two of the busiest thoroughfares in the borough.

The Casino itself was a four-story brick structure of somewhat shabby exterior, but roomy within. On the ground floor was a barroom, at the rear of which were a number of billiard-tables. On the second floor was yet another barroom and a big apartment for dancing. On the third floor was a small theater and yet another bar.

Here the auditorium was so arranged that the seats could be removed in short order—as they were every night after the stage performance—a dance following.

On the fourth floor were a dozen or so of small rooms, in each of which, so rumor had it, were continuous card-games of all sorts and descriptions.

The Casino had a most unsavory reputation. Robberies without number and two or three fatal stabbing and shooting affrays were recorded against it. Since Burke obtained power in Highburg, however, the Casino had been left severely alone by the authorities and was running in full blast, a disgrace to the community. Its manager was a man named Neil—a big, burly fellow who had graduated from the Tenderloin of New York as a keeper and manager of dives.

A corps of bouncers, trained by himself, was a feature of the Casino.

On their way to the place, Leigh explained that the object of his current visit was to look the place over in order to obtain preliminary data for an exposé. He said that Allen's little bout with Captain Hendrix had reminded him that some months before it had been rumored that the captain was the virtual owner of the building.

Leigh's investigation in certain of the

municipal departments and private information which had reached him had proven that Hendrix had tried to cover his connection with the place by a series of first and second mortgages and transfers, but that nevertheless he, Leigh, had established the fact of ownership.

"But why the guns?" asked Allen, tapping his hip-pocket as he neared the place.

"Well," said Leigh, "Neil knows me—to his sorrow. When he first came over here—perhaps you have forgotten the story—I showed him up in good shape.

"His record was not exactly of the nature that a man cares to see in cold type, and he swore to do all kinds of things to me.

"On two or three occasions, when I ran up against him, he has shown an ugly disposition. He and his bouncers are a pretty tough lot.

"While I do not believe in guns, yet guns have their uses. They are like tonics—they act as preventatives sometimes.

"Neil will know that I have got an object in coming to his place, and should he cut up about it it is possible that we will get a story that will be outside the Hendrix question."

The two reporters passed unnoticed and unrecognized into the auditorium of the theater. The floor space was taken up by seats arranged around little tables, there being a quartet of chairs at each.

Two of the chairs facing the stage were taken possession of by the visitors. They ordered cigars, and apparently fixed their attention on the "artists," while, in reality, they were taking in their surroundings.

The place was fairly well crowded and the waiters were busy. The reporters had to wait some little time for their orders to be filled, and in the interval a young, rather pretty blonde, sitting at the table immediately in front of them, tried to call their attention to the fact that she was thirsty.

Suddenly her smiles disappeared, and, in their place, came a sudden look of alarm.

As she was looking directly at them, Leigh knew that some one just behind must have been responsible for the change in her demeanor.

In a moment he turned carelessly and saw, at another table, Neil and Alderman Schmidt. The former scowled and spat as the reporter looked at him.

Leigh quietly reported the matter to Allen, whose face brightened.

"Jolly place for a scrap, Jimmie," he murmured. "These chairs will come in mighty handy."

The reporters' order was not filled, and Leigh knew full well what that meant—a remonstrance was thereby invited, which, by means thoroughly understood by dive-keepers, could be easily developed into a fight.

Leigh suggested to Allen that they take their departure. Outside of the theater floor somebody tapped Leigh from behind.

It was Alderman Schmidt.

"What are you doing here?" he said insolently.

Leigh replied that it was none of his business, whereupon Schmidt expressed his opinion of newspaper men in general and of Leigh in particular, in a tone that brought a number of persons to the landing, including several whom Leigh recognized as Neil's rough-and-ready bouncers.

"Get your back against the wall, Billy," whispered Allen. "Don't let them get behind us, and get as near the stairs as you can."

"Have you anything more to say?" said Leigh, as Schmidt paused for breath. "Because if you haven't we would be glad to know it. I am busy and want to get away."

Neil thrust himself forward.

"Well, you won't go away as you came in," said he.

"And why?" replied Leigh.

"Because I'm going to smash—"

Allen interrupted:

"I would like to remark, friend Neil, that you're not in your Sixth Avenue dive just now! And so if you put a hand on my friend or myself—you or any of your heelers—I'll make a hole in you that you won't mend with a needle and thread in six months!"

He whipped the revolver from his pocket. Neil checked himself suddenly.

"Why, you—" he began; but before he could go further Leigh's revolver had been produced and was handed to his companion.

"Jimmie," said he, "keep that crowd covered. And now, Mr. Neil and Mr. Schmidt, here is my note-book and here is my pencil. Talk away as hard as you please. I'm going to report you at length."

The battle-fire was in Allen's eyes, and there was no movement forward. The manager and the alderman, stung by the laughter of the crowd, availed themselves of the invitation issued by Leigh, and for ten minutes poured forth a turbulent flood of picturesque language, in which they said everything possible that could be said in a profane way about the press.

"Thank you," said Leigh cordially, "I'm greatly obliged to you; but you really must excuse us—we have other engagements."

He and Allen backed down-stairs, the little, wicked, black noses of the revolvers pointing upward as they did so.

"Well," said Allen, as they got outside, "we got our story, and it was hotter stuff than we had looked for, but it won't spoil your future story, will it?"

"No," said Leigh reflectively, "it won't. But in my story to-morrow morning I shall tell of Hendrix's connection with the place, and of course shall give you and Halstead all that which I have learned in that connection."

So the word went round Highburg that the trio had knives in store for those who sought to bring confusion to their faces. Hendrix and Maloney and their associates wondered what would happen next.

They did not have to wonder long; for the very next day there appeared in the three papers more about the Harrow Street resort, and the day following the *Sentinel* put on foot a petition to the mayor of Martport to close the Casino.

Burke was more wrought up over the matter than he cared to confess. Astute and unscrupulous as he was, he knew the power and product of aroused public opinion.

Criticism he looked for in the newspapers, but between that and specific and organized attacks on institutions with which he was identified was a totally different matter.

He knew, too, that men of his caliber were only possible and safe so long as the average citizen wasn't aroused. He was "sore" with the men responsible for the rumpus, and Hendrix and Maloney got a picturesque calling down.

"Some of you stiffs in uniform," said the "boss" to the sergeant, "don't know enough to swallow after you've chewed. If you must scrap with something, I'll have you chased up among the goats, where you can scrap all day long. I guess a little sidewalk-pounding'd take some of the fat off'n your brains, as well as where your belt hits you. The next time you feel that you must try to queer a reporter, you come to me first and I'll tell you what to do. Understand?"

The sergeant understood—perfectly; and Captain Hendrix got practically the same rebuke from Burke, who added—"and you're in a 'good-night-to-you scrape,' cap, at that. That fellow Leigh is a bulldog when he once gets his teeth in.

"You may just as well close the joint or chuck up your job unless you make peace with him and his crowd. As for Neil and Schmidt, I'll attend to them dubs later.

"Meanwhile, if I were you I'd detail about half a dozen of the huskiest cops in my command to lay for that brace of mutts and give 'em locust pie for supper."

To a man of Hendrix's type, making peace was merely a matter of purchasing the silence of another.

CHAPTER XII.

The Meeting with Burke.

BURKE, yielding to that grim humor that was one of his saving graces, sent his name into the *Sentinel* as a citizen who desired to further the movement to "clean up" the dives. One evening, he walked into the reportorial room at the Municipal. All of the members of the combine were there with the exception of Griggs.

No game was in progress. Jennison was gloomily puffing a pipe; Bronson was stabbing his desk-lid with an ink-eraser. The others were doing nothing in particular.

"Evening, boys," said Burke. "Regular hive of industry, this. I s'pose Leigh's got away with all the news again and left none for you?"

The men smiled rather sheepishly.

"Well," went on the "boss," "what y' going to do about it? Seems to me that he's got this crowd cinched. He's not only held his own, but he's licked you to a standstill."

"He's just been lucky," growled Jennison. "And then, too, those curs, Allen and Halstead, have been putting him on to things."

"Humph," muttered Burke, "Halstead and Allen don't account for that," and he threw on the table the *Sentinel* with a denunciatory editorial marked with a blue pencil.

"No," replied Jennison, "that must be charged up against Hendrix's fool tongue."

Burke reflected.

"Look here," he said at length, "as the matter stands, Leigh has got the best of you—"

"Of all of us," interrupted Ely, a glint of mutiny coming in his eyes.

"I said of *you*," replied Burke, with an ugly emphasis. "He gets the news in spite of you, and he publishes it, too. Well, what are you going to do about it?"

Ely shrugged his shoulders, but did not reply. Neither did the others. Burke gave a grunt of impatience.

"How is it you managed to work your freeze-out game before, and yet don't seem able to do the same to him?" he asked.

"Leigh's a star man, you must remember," replied Jennison. "He isn't like those other chumps that we had to do with. He knows the district—"

"You bet he does," said the "boss," with a short laugh. "And for that reason I'm sorry that you didn't have sense enough to keep him in the combine. That's where I've got it in for this crowd. You let Leigh go.

"In fact, you forced him out. From all I hear, you were so cussed sure that you could drive him from the district that you didn't take the trouble to be even civil to him.

"You had to get his dander up right away, like the fools that you are. And it's getting on for election, too."

There was a rap on the door. Jennison opened it.

"Mr. Leigh would like to see Mr. Burke," said a waiter.

"Show him into my private room and tell him I'll be there in a minute," said the "boss."

Then he turned to the others.

"Leigh's as gritty as he's clever, you see. It is a pity that you ain't the same. And if there ain't less chair-warming here this room will be to let."

He stalked out, slamming the door.

Leigh returned Burke's rather effusive greeting in a businesslike way, and after listening to some jollying in regard to his recent newspaper work and declining an invitation to drink, said abruptly:

"I wish that you would shut down on your games up-stairs, Burke. If you don't, I'll have to do what I'm really unwilling to do."

Burke looked at Leigh for a full half minute.

Then he said, pausing between each word:

"Billy — Leigh — you — have—certainly—got—a—magnificent—gall!"

"Not a bit of it," asserted the reporter. "It's a plain proposition. Everybody who's in the know, and a good many who are not, are on to what goes on overhead. Incidentally, I've two or three sworn statements of ex-patrons of yours who have squealed to me. Thought it well to get 'em before I called on you, in case—"

"Case of what?" said Burke curiously.

"Case you didn't know what was good for you. Or in other words, if you refuse to close down—and we needn't waste many words over it—the *Record* is going for certain people and things in Highburg, as you know. The Municipal is on the list—at present. But, Burke, you've been good to the boys, whatever your motives were. Also, Allen and Halstead feel pretty badly over the idea of my ripping you up, considering that they have been your guests, and are now working with me.

"I want to say right here that they haven't given me a word about the games. I didn't ask them anything regarding them. I don't think that they would have told me anything if I had. So, taking it all round, I would very much prefer not to write up the Municipal; and I hope that you won't force me to do so. Of course, all this is in confidence."

Burke looked at the speaker curious-

ly. If he had been given to emotional relapses, one might have been forgiven for thinking that, judging the expression on his big rubicund face, he was now thinking deeply.

"You're a fair fighter, Leigh, and I believe what you've told me about Allen and Halstead. It's a pity—oh, it's a pity that you're not on our side. I'd have you managing editor— Well, never mind that. But if ever you're out of a job, come to me."

Leigh laughed lightly.

"All right," he said, "and much obliged. I don't think, though, that I'll have to trouble you for some time yet. But what about the Municipal?"

"Outside of your story, what will your people do if I don't shut down?"

"I'm not in the habit of giving away the intentions of my employers," replied the reporter.

"Of course not, Billy," said the "boss" hastily. "Of course not. I forgot myself. When do you want my answer about this?"

"Now."

Burke whistled. "I guess there's no chance of a compromise or diplomatic delay where you are concerned. But I'll let you know my decision to-morrow. Still what's the hurry for a day or two?"

The reporter hesitated. "Make it to-morrow, then, at two o'clock. I'm sorry that I can't give you any longer, but the fact is that my arrangements won't allow of my so doing."

"By the Big Potato, but you're a cool one, Billy!" said Burke, as he held out his hand. Leigh stopped at the door.

"I've had a hint given me," he said quietly, "that somebody may or may not try to stop my mouth with a bunch of greenbacks in regard to the Harrow Street Casino. I know that you're not the father of the idea, because you have never been reputed to be an idiot.

"I just want to say this," went on Leigh, "that if you know and are the friend of the man who thinks of attempting this thing—call him off. Because, if he tries it, I shall certainly run him out of business and out of town if I can. And I'd like to add that Hendrix isn't a young man. Besides, he's got a family."

"You told me, not so many weeks ago," said Burke, "that you were going to reply in your own way to my offer to be—your friend; and you've certainly done so. Now, if I could make a mistake about you, you mustn't be hard on another who happens to do likewise. People have got to find out what kind of a fellow you are. Don't be too rough on them for trying to do so."

"Good night," replied Leigh. "But don't forget to pass the word to—you know who."

Burke looked after him as he left the room, pursed his lips, shook his head regretfully, and, calling for pen and ink, wrote a short, sharp note to Hendrix.

After some thought, he sent short notes to other police captains by special messenger.

Before this happened, and while Leigh was on his way to the Municipal, he had met and was stopped by Alderman Schmidt, who looked seedy and unhappy—totally unlike the aggressive individual of a few nights before.

"Mr. Leigh—" he began.

Leigh stepped aside. "If you have anything to say to me, come to my office and say it. I don't care to talk to you in the street."

"Just a word, Mr. Leigh, just a word," persisted the other. "Let up on us a little. Why not? You haven't shut the place up—but you've done just as bad; you've scared all our customers away. They're afraid we'll be pulled."

"You've changed your tone since the last time I saw you," replied Leigh contemptuously.

"Ach, what a fool I was—a thousand fools in one fool! And, Mr. Leigh, there's people who'll not forget you if you let up. They'll thank you one hundred times—yes!" He leered at the reporter meaningly. "Yes, more as a hundred! And send them to you! The thanks! In an envelope, maybe! Ha, ha! Think!"

Leigh glared at the alderman for a moment and passed on without a word.

CHAPTER XIII.

Busted!

IT was nearly midnight when Leigh returned to the office that night.

"Lots of news, eh?" said Leigh, as he eyed the busy writers.

"Heaps!" replied Allen.

"And the funny thing about it is," said Halstead, "that most of the stuff is 'station-house.' A fellow lost a pet white crow that speaks seven languages. Dutchman appeals to the cap of the eleventh to make his wife rush the growler more frequently. Male and female Weary Willies ask sergeants of the fifth to marry them."

"Um," mused Leigh, "seems to be a change of heart among the cops."

"Yep," said Allen jerkily. "And more than that. Doc Onslow, of St. Mary's Hospital—little beast that he is—rung us up about an hour ago to say that a kid, Sumpter Street way, had swallowed a pair of shoes."

"What?" cried Leigh.

"Pair of shoe-laces," explained Halstead.

"It looks to me, boys, as if there was something doing," declared Allen.

"I think," said Leigh quietly—"I think that we've busted the combine!"

"Mr. Leigh to the phone!" said an office-boy.

"It's me—Burke," came over the wire. "I just want to say that I'm closing down—up-stairs, you know—to-morrow. And, Billy, I'm getting tired of having this combine crowd around here. So I'm telling 'em to get out. S'pose you haven't got room for 'em up at your place?"

Leigh held a conference with his colleagues. Then he said to Burke:

"I can make room for all of them except Ely and Jennison, if they care to *work* with us."

"Good for you. The boys will be thankful, I'm sure. So long."

"As I told you," remarked Leigh, as he replaced the receiver, "the combine is busted."

Jennison had called earlier in the evening at the eleventh precinct station-house—where, in response to his query as to whether there was any news, Captain Gregory, commanding, spake thus:

"Yes; we've got one or two good stories. But they are not for you exclusively. Leigh and the others will get them, too."

"What in thunder do you mean?" Jennison demanded.

"Just this: Leigh and his crowd get nearly all they want, whether we give it to them or not. How they do it, I don't know, and I don't care. But I do know that the people who refuse to give up to them get it in the neck sooner or later.

"Now, I ain't going to queer myself with Leigh by shutting down on him just to make things good and easy for your lot. See?

"And, judging by what's happening in the newspapers, it is much safer and certainly more pleasant to be a friend of Leigh than otherwise."

"All right," replied Jennison threateningly. "I'll see what the 'boss' has to say about this."

"If I were you," answered the captain, with a smile that meant many things, "I'd keep out of Burke's way as much as possible until after election. And then perhaps you'll find it better to make yourself scarce altogether."

Later he tore up a personal letter from Burke in which he was requested to see that "all reporters got the news of his precinct." The other police captains did likewise.

And they knew quite well why they were so instructed. Burke and Burke's men had had quite a sufficient taste of Leigh, in view of the election.

How Burke again got control in Highburg is another story, and one that is illustrative of the fickleness of the public in its affection for municipal reform.

How Leigh was made secretary of the Citizens' League, the body that was mainly responsible for Burke's overthrow—is not that local history, too?

In later years he, having fulfilled many of his legal ambitions, was slated for an assistant district attorneyship on the Independent ticket. Burke threw the weight of his influence in his favor, and Leigh's election was the result. For the "boss" was like unto a windfall, having some rotten spots with intervals of soundness. He had a high regard for official integrity even if he did not himself possess it.

To his followers he said:

"Leigh's a safe man for the place. If we put one of our own fellows up, he'd know too much, and could work us if he wanted. But with Leigh, there's no chance of our getting the double-cross even if he won't show favors."

And there is a Mrs. Leigh, who was a Vincent.

(The End.)

Recent Railroad Patents.

BY FORREST G. SMITH.

Some of the Details Which Help to Form the Evolution and Progress of Railroading in the United States and Canada.

A NO CONDUCTOR CAR.—With no intention of dealing exclusively with the inventions made by Mr. Rowntree, one of whose inventions is referred to farther on in this article, we feel compelled to refer, briefly at least, to a new departure in the line of the pay-as-you-enter type of car devised and patented, No. 949,131, February 15, 1910, by him.

It is generally recognized that on comparatively short lines such as branch lines, and on suburban lines passing through territory which is but sparsely settled, the employment of a conductor on each car is a source of expense which yields but little return, although it has heretofore been necessary.

The type of car shown in this latter patent is so constructed that the motorman may conveniently perform his usual duties and at the same time attend to the collection of fares from the entering passengers. To his controller-box are added a couple of levers by the manipulation of which he may control with ease any and all of the doors of the car, and the cash or ticket box is also supported upon the controller so that he may attend to the collection of fares.

His station is within the car, as there is no defined platform, and passengers both entering and leaving the car pass to either side of him, but not in front, so that his vision is at no time obscured.

DISTRIBUTING CAR HEAT.—Passengers on railroads, no matter how comfortable they may be made in other ways, have noticed that the air in the vicinity of the seats is stuffy, even in the severest weather. This is due almost solely to the fact that the heated air-currents are allowed to pass to the forward part of the seat, and most naturally become confined and render the occupant of the seat uncomfortable.

Also, as is well known, car-seats are reversible, and when so moved the inclination of the seat changes. Mr. Frederic W. Butt, of Brooklyn, New York, has taken advantage of this fact, and has provided an automatic means whereby the seat of a passenger-coach will at all times be heated to the perfect comfort of the passenger.

The device invented by Mr. Butt, and shown in patent No. 948,309, February 8, 1910, consists merely in a deflector or baffle-plate which is mounted beneath the seat and is so connected with the seat-reversing mechanism as to direct the heated air-currents toward the back of the seat, whether it be in one position or the other.

TO PREVENT RAIL CREEPING.—The ordinary tie-plate now in use, while effectual in preventing spreading of the rails, does not even assist in preventing creeping of the rails, and in fact, after it has been in place for a considerable time, will only loosely engage the rail.

Numerous attempts have been made to devise a tie-plate which would frictionally clamp the rail which it was intended to hold, but usually such devices embody wedges or clamping-bolts, both of which are undesirable in many ways.

G. A. Hassel, of McKeesport, Pennsylvania, has disclosed in a patent, No. 949,270, February 15, 1910, issued to him, a tie-plate construction which, while slightly more expensive probably than the ordinary plate, serves not only its primary function, but will also prevent creeping of the rails.

This tie-plate is in two parts—one of which is disposed upon the other, and each of which is formed with rail base engaging-flanges similar to those of the ordinary plate. Each part is further formed with spike openings, and these openings in the two parts of each plate are so located that

when the parts are assembled the openings do not exactly register.

As a result, when the spikes are driven through the parts and into the tie, the parts will be drawn together, so to speak, and consequently their rail-engaging flanges will frictionally clamp the base-flange of the rail, the flanges of one part engaging the base-flange of the rail at one side, and those of the other part at the other side.

The plate has been adopted by a large rail-manufacturing concern of Pittsburgh.

GUARDING THE GUARD-RAIL.—It is at present customary to either merely spike down guard-rails or to secure them by means of tie-plates, but neither method insures the proper spacing of the rail from the main or track rail. It is true that it has been proposed to utilize spacing-blocks, but as these blocks are not rigidly secured in place, they are liable to lose their efficiency for this purpose.

It has also been proposed to connect the main and guard rails by bolts of sufficient length, but even with this expedient the employment of spacing-blocks, in addition, is necessary.

To combine the efficiency of the connecting-bolts and the spacing-blocks in a single device which possesses the advantages of both, Charles A. Allen, of Steelton, Pennsylvania, has secured a patent, No. 949,253, February 15, 1910.

It consists merely of a U-shaped member, which is placed between the main and the guard rails and is held in place by the bolts which are sometimes employed in securing these two rails together.

NEW P. A. Y. E. CAR.—Now that pay-as-you-enter cars have come into general use, efforts are being made to economize in platform space and yet retain all the advantages of such a car. In the ordinary constructions of such cars now in use, the employment of two doors instead of one at each end of the car adds considerably to the length of the car platforms.

In a patent, No. 949,717, February 15, 1910, issued to Harold Rowntree, of Chicago, Illinois, there is shown a structure in which this disadvantage is overcome and the seating capacity of the car is materially increased. In the car of this patent a railed enclosure for the motorman is provided upon each platform, or rather at each end of the car, for there is no defined platform space unless indeed it be this small enclosure.

Rearwardly of the enclosure, and within the body of the car, is arranged a swinging-guard which, when in one position, cooperates with the enclosure-rails in such manner as to prevent the entrance of passengers at the front end of the car, although when in the other position at the rear of the car it permits of such entrance.

This guard, which extends only about half-way across the car, takes the place of the usual doorway of such cars, and that side of the car opposite the entrance side at each end is entirely closed and affords a seating space which in the ordinary car is wasted. The exit doors for the car are located one inwardly, or, in other words, rearwardly of each guard.

Another feature of the invention resides in the fact that the opening and closing of the entrance and exit doors is simultaneously controlled by the conductor through the turning of a switch-handle upon the guard, resulting in the supply of current to a suitable motor operatively connected with the two doors at each end of the car.

A LOCKING JOURNAL-BOX.—The theft of journal-box brasses is almost encouraged, in the present constructions, owing to the fact that the lids may be opened by any one. It is not desirable to have locks for the lids, for it requires too much time to open them when so provided, and yet it is desirable that some means be provided whereby the opening of the box may be rendered practically impossible except by the employment of a suitably designed opener.

A box which will secure the desired results in this direction, and will further present the advantage of having its lid held firmly in place in such manner as to exclude dust, is shown in patent No. 948,037, February 1, 1910, issued to Samuel T. Bole, of Philadelphia, Pennsylvania, and assigned to and adopted by the J. G. Brill Company, of that city.

The box is extremely simple in construction, and the lid is entirely removable, it being seated between a flange at the upper side of the opening of the box and a latch at the lower side. This latch is held in place by a strong spring, and is depressable to disengage from the lower edge of the lid, whereby to permit of its removal.

There is little or no possibility of removing the lid of this box except by the use of a special tool which has a portion adapted to engage beneath the flange at the upper edge of the opening of the box and a portion to engage with the upper end of the latch and depress the same out of engagement with

the lid when the tool is swung down. The upward pressure of the latch, as well as its inward pressure, both of which it exerts, serves to hold the lid firmly in place and prevent the entrance of dust.

A SAFETY COUPLER.—

While numerous devices have been offered to permit of the coupling and uncoupling of freight-cars without the necessity of the trainmen going between the cars, they have usually embodied rock or winding shafts, which are not only liable to become clogged with ice, but are seldom so constructed as to be operated by the foot of a trainman on the car while the train is in motion.

Mr. James R. Carmer, of Wilmington, Delaware, has patented, No. 948,205, February 1, 1910, a device for this purpose which apparently answers all requirements. Instead of employing shafts and the like, he makes use of direct levers, of which there are two at each end of the car, they being pivoted between their inner and outer ends, and having their inner ends connected to the coupling-pin at the respective ends of the car.

The outer ends of these levers project to the sides of the car, and are within easy reach of a trainman upon the car, so far as foot-manipulation is concerned, and they are as easily accessible by hand from either side of the car.

A SPIKE WITH TEETH.—

This month's search for new devices discloses a spike which must be mentioned, as it embodies features which are not to be found in the ordinary spike nor in others which have been proposed for adoption. The spike mentioned has been patented, No. 947,887, February 1, 1910, by John Dellwo, of Grantsburg, Wisconsin.

In its structure it does not differ from the ordinary spike now in use, except that upon its rail-engaging face it is provided with sharp ribs which are adapted to bite into the edge of the base-flanges of the rails which it holds. By doing this the spike serves not only its original purpose, but it also serves as a means whereby the rails are prevented from creeping.

In other words, it not only holds the rails to the ties, but also prevents creeping to any appreciable extent.

ECONOMICAL TROLLEY-HANGER.—

Necessarily the wheel-bars of trolley wires receive the greatest wear, owing to the impact given them by the trolley-wheel. It is now customary when a trolley-hanger becomes worn to replace the entire devise, with an attending expense. Robert S. McFeely, of Scalp Level, Pennsylvania, has devised a trolley-hanger so constructed that when the wheel-contacting part becomes worn it may be readily replaced.

In the patent, No. 948,899, February 8, 1910, issued to Mr. McFeely, it is proposed to provide the trolley-hanger with a wheel-contacting portion which may be readily removed and a new portion substituted when the original one becomes worn.

This portion is held in place by a spring-latch which is not affected by the passage of the trolley-wheel, but which may be readily manipulated by a lineman for the purpose of substituting a new one.

ANSWERS TO PATENT PROBLEMS.

W. W. M., Monroe, Louisiana.—Are there any patented devices for raising the journal-boxes of cars through the medium of the steam or air lines of a train?

A number of such devices have been patented and some are in use, as far as the assignment department of the Patent Office indicates. There is no apparent reason why such devices should not be practicable.

W. M. L., Atlanta, Georgia.—Is the gyroscope car an entirely new invention?

No. It is merely the carrying out, so to speak, of an old principle discovered about 1750 by a scientist by the name of Frisi. This principle has been merely adapted to railroading by parties realizing its value, and while it will in time probably mean a wonderful advance, it is nevertheless an "old idea."

W. A. B., Pittsburgh, Pennsylvania.—Is it advisable to secure protection in all foreign countries after a patent has been secured in this country?

By no means. A patentee should consider first of all whether the industries and need of each country, foreign to this, will demand or necessitate the advance which he has made.

A careful study of the needs of each country is necessary before one can judiciously determine whether or not to carry his patent rights into foreign domains.

The Railroad Man's Brain Teasers.

Here Is One Right Out of the Shops, Boys! How Many of You Can Solve It?

FROM H. A. Nichols, of Butte, Montana, we have received the following teaser:

In a building with eleven floors there are four elevators in use. For the sake of convenience they are designated as Nos. 1, 2, 3, and 4. They all start from the first, or ground, floor in the morning, beginning with elevator No. 1, at 7 A.M., sharp. No. 2 starts at 7:01 A.M.; No. 3 at 7:02 A.M.; and No. 4 at 7:03 A.M. The running time is such that No. 1 passes a floor every minute, No. 2 every 1½ minutes, No. 3 every 2 minutes, and No. 4 passes a floor every 2½ minutes.

For instance, elevator No. 1 starts at 7 A.M., and reaches the second floor at 7:01 A.M., the third floor at 7:02 A.M., and the eleventh, or top, floor at 7:10 A.M., from where it immediately descends on the same schedule; or No. 4 starts from the first floor at 7:03 A.M. and passes the second floor at 7:05½ A.M., and reaches the eleventh floor at 7:28 A.M., and immediately descends on the same schedule, reaching the first floor at 7:53 A.M., and then immediately ascends, and so on.

The problem is: When does the first chance occur, after starting in the morning, that all the elevators are at the same floor at the same time, and what time of day? Which floor is it? And what direction are the elevators going—up or down?

The answer will be published in our June issue.

Answers to April Puzzles.

(1.) It can be done in nine moves.

(2.) Distance: North-bound train, 100 miles; time, 2 hours 5 minutes. Speed: 48 miles per hour.

West-bound train.—Distance: 100 miles, plus 440 feet, equals 100 1-12 miles. Time: 2 hours 5 minutes, or 2 1-12 hours; hence we convert the time and distance of the west-bound train into twelfths, which in the time is 25 twelfths, and in the distance 1,201 twelfths. Dividing the latter by the former, we obtain a speed of 48 1-25 miles per hour of the west-bound train. So 1-25th of a mile is gained each hour by the west-bound train, and in 2 1-12 hours the gain will be the product of 2.0833 hours multiplied by 211-2 feet, which gives 439.999+ feet, or approximating the length of the train, 440 feet. Two and one-twelfth hours, decimally, is 2.0833, and 1-25 of a mile is 211.2 feet.

ON THE EDITORIAL CARPET.

This Is Where We Gather in the Hut, Boys, Tell Our Troubles, Listen to Yours, and Sing a Few Old Songs.

IN spite of the pleasure that we naturally take every month in talking about what we are going to do the following month, it sometimes becomes quite a difficulty to do it in what we feel to be an adequate manner. It is all very well for us to sit here and describe, month by month, how we are going to put on a record-breaker for the next month; but, at the same time, it is mighty hard to convey a true impression of the care we have taken in testing every cylinder, bolt, crank, and gage in order to be sure that our engine will pull up every grade without blowing itself to pieces.

We might tell you that we are going to give you such and such a good story, or such and such a good article, until we have blown every bit of our steam-pressure through the whistle; but, beyond making a certain amount of noise, this would be the only result achieved if we did not convey to you the fact that there is not any other line where you can come across rolling-stock at all like that which we are at considerable pains to gather together.

What we want to convey to our readers is that we are trying to create for them an absolutely new class of stories and articles. Now, we want to know if our friends believe we are doing this.

So when we come out and specifically tell you that a certain story has everything else scared off the right-of-way, we would like you to just switch in and couple on to a pen and a bottle of ink, or even a stub of pencil and the back of a requisition form, and tell us what you think about that story.

Don't be afraid that we will put a derail under your front trucks and ditch your little effort into the waste-basket. We won't. We are always mighty glad to be in personal communication with our readers, and we don't fuss to ourselves like a leaky cylinder every time somebody comes along and tells us to jack up our boiler and put new gears under her.

Now, for instance, we are going to tell you what we think of our June number. When you have read the stories we mention just break in on our wire, and let us know how much you think we don't know about it.

There is one feature that we are absolutely confident you will welcome. It is the opening story of another series of "Honk-and-Horace" yarns by Emmet F. Harte.

You will remember that the genius of Honk and the industry of Horace had created an ideal little town called Valhalla of the Hills. You will now learn how Honk administered and regulated this Utopia, and how Horace played the part of his *Grand Vizier* and *Pooh Bah*, in keeping undesirable citizens from bursting in upon their chaste atmosphere.

Besides this story, we have two other fiction stories which we consider among the most powerful we have ever published. One of them is a story by Nevil G. Henshaw, a writer who is in our pages for the first time; and the other is by Edward C. Fellowes.

Mr. Henshaw's story is a cowboy yarn of unusual type, while Mr. Fellowes's story is a tale of railroad construction, in which a steam-shovel plays a prominent and tragic part. It will probably be called "Bucephalus, Avenger." We particularly want to know what you think of these stories.

Perhaps the most important feature of our June number, however, will be Gilson Willets's first collection of stories sent in from his new tour. They will be published under the title of "Ten Thousand Miles by Rail." We only need promise you that they are in every way equal to all the other stories that Mr. Willets has gathered from railroad men and given back to railroad men through this magazine.

And, incidentally, we thank those of the boys who gave Mr. Willets such splendid yarns. You're a lot of bully fellows—and may your sand-domes never grow gray.

Another unique feature will be the true story of a man whose passion for excitement has been more than satisfied through vivid experiences in twenty-six wrecks.

Our old friend, Robert H. Rogers, will be along with a mighty fine article on "The Roundhouse Foreman."

Besides this, we are going to do something which has never been done in America before, and we are not sure it has ever been done anywhere. That is, we are going to give a sketch of Anatole Mallet, the inventor of the Mallet articulated compound engine. Nobody should miss this.

Now, please try to bear in mind what we said about switching in on us. Remember we really want to hear from you. Let's!

J'int ahead for June!

TRIBUTE TO THE SHACKS.

ONE of our readers sends us the appended poem—a worthy tribute to the freight-brakeman—and, certainly, he deserves to be immortalized in verse. The poem was taken from the Mauch Chunk *Times*, and was printed some time in 1895. Listen, brother shacks:

A BRAKEMAN'S LIFE.

BY M. A. MURPHY.

'Tis 12 o'clock and the midnight freight
Is ready for to start;
They are waiting for their orders,
And the signal to depart.
The night is cold and cheerless,
No star bedecks the sky,
And shivering stands the brakeman,
While moments slowly fly.

How little do ye people know
The struggles and the strife,
The hardships and the dangers,
That beset a brakeman's life.
When lightnings flash and thunders peal,
Midst storms of snow or rain,
You'll see these fearless brakemen
At their post upon the train.

I wonder what's the reason,
Why some people shun them so,
And cast reflections on them,
No matter where they go.
They little know the anguish
That their cruel words impart,
And how they wound the feelings
Of a noble brakeman's heart.

Before he leaves he'll kiss his wife
And little ones, good-by,
And kneeling ask a blessing —
Of our "Father up on high."
And though the night is fierce and wild,
He falters not nor fears;
And the fierceness of the storm seems but
As music to his ears.

Onward over hill and vale
He goes with lightning speed;
He seems but as a specter,
Behind that fiery steed.

Though snowflakes gather round him,
The wind may sigh and moan;
He sits upon his freight-car,
Like a king upon his throne.

Toot! He hears the whistle's blast
Call loudly for "down brakes!"
How quick responds the brakeman,
From his reverie he wakes.
But hark! A noise, a frightful crash!
A grinding, hissing sound!
And far beneath the wreckage soon
A mangled form is found.

A shattered home, an orphan's tears,
A widow in despair,
And brothers of the B. R. T.,
In goodly numbers there.
Though sad and lonely she may be,
No want, nor dire distress
Shall enter through that cottage door,
A widow to oppress.

For like a ministering angel,
Our brotherhood is there,
Within this lowly cottage
Alike their sorrow share.
No bigots there shall slight him,
Nor scoffers cause him pain;
He has gone to help his brothers brake
On God's own Heavenly train.

WE DIDN'T SAY IT WOULDN'T WORK.

SEVERAL letters have reached us from evidently well-informed friends, objecting to the answer given "J. W.," Leavenworth, Washington, in the March "By the Light of the Lantern." This reader wanted to know whether the injector, presumably on a locomotive, would work with the injector-check placed on top of the boiler. We replied in the affirmative, as the pressure opposing the instrument would be the same in that case as in the usual practise.

This, no doubt, was satisfying to the correspondent, and we should have stopped there; but we didn't. In a moment of enthusiasm we allowed a little personal prejudice to intrude, and declaimed with some bitterness against the innovation, which pardonable zeal for a cause has resulted in a slight scorching in the frying-pan.

Our friends hasten to assure us that many examples of recent locomotive construction have the checks as located, and that our objection to discharging the relatively cold water into the live steam space is easily taken care of by piping it from the check to any point in the interior of the boiler where it is considered good practise to deliver it.

It thus appears that a nightmare, as it first appealed to us, can be resolved into a

feasible scheme, after all, and that we were a little behind the procession—in this particular instance, at least—in not keeping up with new departures.

We are admitting all this with cheerful candor, in spite of the fact that we were all right in our answer. It was first feared in reading these kind criticisms that we had been heavily scored on, but we are scarcely even mussed up.

We never said that the altitudinous boiler-check wouldn't work. In fact, our verdict was just the reverse; but we didn't like it, and proclaimed our disregard with its whys and wherefores. Now that we have gone on record, we are going to stand by our guns in this personal opinion. Some of us not so far from this office have pounded checks and tinkered with injectors for over twenty years, both on and off the road, and the chance in "J. W.'s" question was too good to miss our little say, although, of course, not until after a direct reply had been made.

We believe that less than one-half of one per cent of all engines in the country, at this writing, embody this questionable improvement, and are equally confident that it will never be received with general favor by motive-power management. We are now going to fortify ourselves with some interviews to support the latter assertion, and will probably have more to offer on the subject next month.

ONE MORE.

ONE more *wanderlust* classic. And of the many that we have printed in this department of our magazine, this is one of the very best. The author sent it from Oakland, California. He states that he is a reader of this magazine and a railroad man. At any rate, he is some poet as well:

THE HOBO LINEMAN.

BY A. M. S.

UNDER the spreading jungle tree
Three lazy hoboes slept
While o'er their prostrate bodies
The red ants gaily crept.

The sun poured down from heaven,
A flood of golden light,
But they heeded not, for they slept by day
And rode the freights at night.

Their adventurous dispositions
Deserve a better cause
Than trying to beat the railroad,
And break the country's laws.

But still they keep on going,
Content what comes their way,
As they eat with untold relish
Their one poor meal a day.

They have no trials, no worries,
They take life as it comes,
This bunch of social outcasts,
This horde of lazy bums.

But each one has a story
Of how it came to be,
And I'm going to tell the stories
That some have told to me.

The first was the son of a preacher
Who's took to hobo life,
Because some other fellow
Departed with his wife.

Another missed his calling
And blamed it all to fate,
Then realized his error
When he found it was too late.

The third, well, his is the story
That takes a while to tell—
A story of zigzag coursing—
The tale of a man who fell.

"Back in old New England
In the shade of the granite hills,
My boyhood home and ambition,
There I went the pace that kills.

"My dad had a paying store there,
But he died a bit too soon;
For when he left it to me,
I changed the place to a saloon.

"My wife was a lovely woman,
Whom I schooled with when a boy,
Did she love? With a love as pure, man,
As gold without alloy.

"But I learned to love the booze, boys,
As I drank it I thought it fine,
Until I was never myself, but had
A skinful all the time.

"My wife soon died of grieving,
And I planted her 'neath the pine,
And ever since that occasion
It's been hard lines for mine.

"I've tramped the States all over
From Maine to Mexico.
And I guess I'll keep on tramping,
Till I'm landed down below.

"I'm a tramp and you ask me why, boys,
Why? For greatest curse on earth!
The stuff that kills ambition
And shatters the family hearth.

"And so, boys, that's the reason,
I'm headed now for the East,
I'm going to Old New Hampshire
To have my annual feast.

"I always get the spring fever,
And have to hit the road,
With a pair of hooks upon my back,
For that's my daily load.

"I've hiked for the Western Union,
The Postal, too, as well,
Have shinned poles all over the Union,
And worked for the Rocky Mountain Bell.

"But my days will soon be over,
And things will then be bright,
I'll end my stately poem,
And I wish you all, 'good-night.'"

GRADES YOU CAN CLIMB.

WE don't know who was the man who first made use of the expression, "God helps those who help themselves," but he was a man with keen insight into human nature, and he must have had a fine, healthy working knowledge of the Lord. In our humble opinion this man ought to be found out and be placed along with Shakespeare, Josh Billings, and other master minds, who could put the wisdom of a thousand essays into one sentence.

All this has to do with the query that occurs to us sometimes, why does a man who wants a job as a brakeman in Tuskaloo, Minnesota, write to New York to the innocent and unoffending editor of THE RAILROAD MAN'S MAGAZINE to find out how to get it? He probably lives next door to the man who would hire him if he just got out of his slippers and put on his shoes and rang his neighbor's front-door bell.

Understand, we like to have you write, and when we can help you, we like to do it. Also, if you feel that you want to write to us before you go and ask the man across the street for a job, do it; but, bless your life, for all the good it does you in helping you to get the job, you might as well write to a fortune-teller.

We think our reputation for wanting to help people is a pretty good one, and it's because we really do want to help you that occasionally we turn round and tell you how to help yourselves. Sometimes it's just a matter of stopping to think.

For instance, most of the men who write to us for advice as to how to get positions know what road they want to work on. They know what the division point is that they want to hire from; then it's a matter of knowing what official hires that particular class of men.

You don't have to know the name of the official. You know that the train-master hires brakemen; the master-mechanic probably hires firemen and engineers.

The roundhouse foreman hires most of the grades of roundhouse men. The shop foreman or superintendent of shops hires machinists, and the chief clerk of the freight or passenger departments hires his staff. The chief despatcher usually hires the operators.

Of course, there are some slight differences of practise on various roads, but if you are in doubt you can always get exact information by writing to the division superintendent. If you want a position as a Pullman porter or conductor, you will find out the district headquarters for your section and write to the district superintendent of the Pullman Company, and if you don't know it, write to the headquarters at Chicago and they'll tell you.

There are, we know, conditions where a little advice from us might be useful and valuable, such as employment in foreign countries, or in different localities from the one the writer lives in, and we are very glad to give you the best of our information. What we are trying to do is to save you time.

Incidentally, before writing, remember that, although the editor's heart is large, his mail-bag is apt to be pretty nearly as bulky.

Above all things, don't misunderstand us. We like to have you write. We like to hear about your troubles and about your success, and we like to get you on the road to saving you the one and getting you the other with as little waste of time as possible.

KIND WORDS AND A CORRECTION.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

PERMIT me to thank you for the many pleasant moments which I have spent reading that most excellent magazine, THE RAILROAD MAN'S. It is certainly full of good, interesting reading, the kind that railroaders and the reading public in general like.

Your "By the Light of the Lantern" department has been a great benefit to me. I found many questions answered there that I needed in my examination for engineer.

I have been a locomotive fireman now for five years and three months, and have just succeeded in passing part of my examination for engineer. We have to pass on train rules, machinery, and the Westinghouse air-brakes, so you see it requires considerable study to pass successfully.

We are rather well paid here in comparison to other places.

We make $2.88 for our division of 104 miles for engines weighing 140,000 pounds or over. Under that weight, $2.65 and $2.55.

Passenger firing pays $2.30 per hundred miles. Engineers get $4.50 on freight and $4 on passenger trains per hundred miles.

In your March issue your answer to E.

M. B., Wheeling, West Virginia, was slightly wrong.

The woman was never employed to run an engine on the Laurel Fork and Sand Hill (as the road from Volcano Junction to Volcano was known); but was the wife of the regular engineer and ran merely for the pleasure of it.

A woman named Hewit used to handle the engine on the C. and K. V., a narrow-gage road from Cairo to Macfarlan, West Virginia, some years ago, but was not regularly employed.

The old road to Volcano had long disappeared, and the road abandoned, as there is no business there now, the oil being pumped out, except for a few wells.

The road I am employed on—Baltimore and Ohio (Monongah or "fifth division), is certainly very rough. It contains twenty-three tunnels and fifty-two bridges. The tunnels are from seven-eighths of a mile to two hundred yards in length, so you know what a job the engine crews have passing through them.

TALLOW POT.

A TRAVELER'S TRIBUTE.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

I HAVE been a constant reader of "THE RAILROAD MAN'S MAGAZINE" since its birth. It is the only diversion I care to indulge in. The snow-storms in Wisconsin have been disastrously frequent, and while waiting this evening for a prodigal North Western, this poem drizzled through my head:

THE DAY IS COLD AND DARK AND DREARY.

(With Apologies to Longfellow.)

THE day is cold and dark and dreary,
The trains are late, and the people weary;
The crowd still clings to the depot wall;
And at every gust, their thoughts all fall
On the day so dark and dreary.

Our life gets cold and dark and dreary,
When trains are late and weather weary,
Our minds still cling to the smoldering past;
The rest of the year—on time—running fast.
And the day is cold and dreary.

Be still, my friend, and cease repining,
For here she comes, with headlight shining,
Thy fate is the common fate of all,
Through each snow-storm some train must crawl,
Some days must be cold and dreary.

B. B. L., Chicago.

TWO LETTERS.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

FOR fifteen years I have been railroading, most of it in Mexico, the place, to quote you in the article in your February magazine, entitled "Being a Boomer Brakeman," "it's better to keep on this side of the Gringo belt."

I have also read other pieces in your magazine taking a slap at Mexico and her railroad laws, and can quote you them, if you wish, for I have the magazine from No. 1 to date.

This is not a bouquet, so I hardly expect to see it in print, but it would be a good idea for you to do a little investigating, as you claim to do before printing as truth, articles of this nature. You are talking to a good many thousand railroad men, and we all like the magazine, BUT—let us have the truth about that country.

Mr. Herr says, "If ever a train—a freight train, at least—made running-time in Mexico, it is not recorded on the books of national history." And he draws his conclusions from the only place in Mexico where all trains are not almost invariably on time—the only division in the Republic where conditions are so bad on account of poor water and long desert stretches, that it takes a first-class railroad man to get over the road on time, and where hoboes and boomers are the rule—and who expects them to make any time anywhere, except a meal-ticket stake?

He gives us the impression that he worked for a full month, and drew down eighty dollars, Mexican. The pay-schedule will show, on the Mexican Central, that that could hardly be, unless he classed himself as a Mexican. They don't pay by the month. They pay by the kilometer, and a good rate of overtime is paid for all that is made.

And the judge said, "Not Guilty," and imposed a fine upon them of sixty-four dollars, eh? Rats!

I worked as timekeeper on that Chihuahua Division, and I broke and ran train there. I worked at Jimulco and out of there, and a finer set of Mexicans composing the official element there I never hope to see anywhere.

Just the same, when a hobo goes against the Mexican booze he gets slapped into the jail, and kept there till sober, and why shouldn't he?

In the second place, there is no one in Jimulco with authority to try a case of that seriousness, *i.e.*, throwing a woman from a running train. They would be taken to Torreon. Furthermore, if they could show the woman was beating her way they could have her arrested, whether she was hurt or not.

And those salt mines. I heard about them for months, till one day, when I was running train on the National, out of San Luis Potosi, I went to the office and took a lay-off for ten days. I put in that time endeavoring to locate those salt mines, in which prisoners suffered such pain. I never found them. You prove every tale you print. Where are they, please?

I ran trains down there on three roads, and had several accidents. Yet I never

spent a day in jail, and was only called upon to give my evidence in court three times, each time being courteously treated by each Mexican official with whom I came in contact.

The day of "high-ball" is past. The railroad man now is too well educated, and too quiet a family and home respecting man to believe these tales. "Mexican law made for the Gringo. Booh!"

L. KNIGHTSON, Los Angeles, Cal.

EDITOR, THE RAILROAD MAN'S MAGAZINE:

AFTER reading Mr. Knightson's criticism on my remarks concerning Mexico, and reviewing the article to which he takes exception, I am convinced that even Mexican law would concede that I am guilty, as indicted, only on a technicality, and that there is no evidence of malice aforethought, or intent to criminally misrepresent the conditions.

It may be that Mr. Knightson formed his impressions of Mexico under more favorable circumstances than I, and he certainly must have had more time in fifteen years to acquaint himself with conditions and surroundings than would any man in the brief span of a year.

I simply made a brief mention of events which came to my personal notice, and must insist that they have not been distorted or sensationalized.

The statement, "If ever a train—a freight-train, at least—made running-time in Mexico, it is not recorded on the books of national history," appears especially obnoxious. That any one should read such a sentence, and take it seriously, reflects an amazing denseness on the part of the reader, or a very lamentable crudeness in the author's efforts at humor.

However, since I am on the defensive, I must insist that the statement, as it stands, is absolutely correct, as the "books of national history" make no record of freight-train performances.

As a matter of fact, the wonder is that freight-trains are able to cross certain sections of Mexico at all. Bad water, poor coal, and a hundred other things handicap them, and I found it to be a fact that even first-class railroad men not infrequently had a few hours overtime marked down on their trip-slip.

Regarding the pay for brakemen, let me say, that, to my personal knowledge, one young man whom I have known from his youth up, worked on the Mexican Central for one month, and when he cashed in at the pay-car, he drew down eighty dollars, Mexican money.

He did not exactly class himself as a Mexican, but he had a braking partner by the name of Juan Martinez. Juan is neither a German name nor a Shamrock trade-mark, and this youth has always believed that Juan was a Mexican Indian. Juan and this acquaintance of mine used to sleep under the same blanket, and Juan owned the blanket, too.

We both frequently sought the by-ways and hedges for passengers who were asked to contribute to the general fund, and in such hunts they often found women riding in the coal cars and box cars. Sometimes they were put off the train, but no one ever thought of having them arrested, which brings us down to the questions of Mexican law.

Jimulco, a few years back, had a magistrate. It also had an adobe jail. Any one desiring further information on this point might communicate with Mr. Charles Wilson, of Fredonia, Kansas. He was in Jimulco at the time of the trial referred to in the article under discussion, and he will undoubtedly tell you that the two Americans were tried on a charge of throwing a woman from a train; that the evidence justified an acquittal, and that among other punishments ordered by the magistrate, was the provision that the Americans should pay the woman a dollar a day, until she had recovered her injuries.

The Mexican statutes are above my criticism, but there are hundreds of cases to show that, in isolated villages and districts, law plays less than prejudice in the trial of Americans.

I believe that Mr. Knightson must admit that the average Mexican cherishes little affection for the Gringo. As education and civilization advances in the Mexican Republic, these conditions will change; they are less noticeable now than they were five years ago.

Mexico City to-day is one of the most beautiful, most romantic, and most cosmopolitan cities of the world. The rights of the foreigner are respected, and he is a welcome guest, but Mexico City is only a small part of Mexico.

The isolated Mexican hamlet may appeal to some, but pardon me if I refuse to grow enthusiastic over it.

I agree that the "truth about Mexico" would be interesting reading, and when the whole truth comes to light there will be pages of it which will make a Balzac novel look somewhat like a Sunday-school paper along side of it.

H. H. HERR, Kansas City, Mo.

MISSING MEN.

ONCE more we wish to state to those of our readers who request us to insert notices in this department for missing friends and relatives, to send us, with their request, a letter from the firm that last employed the missing man or from some other reliable source to show that he is really missing. Anonymous or initialed letters relating to this or any other subject will not be considered.

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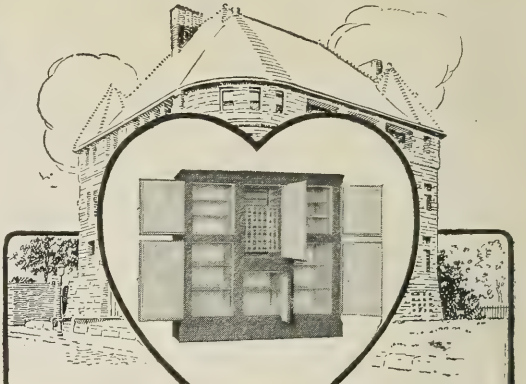

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are built. This catalog will interest you whether you contemplate buying a refrigerator at present or not. The health of your family depends to a great extent on your refrigerator, and you ought at least know how "The Standard Refrigerator of America" is built, and how the McCray system gives the constant circulation of cold, dry air which is so essential in keeping foods wholesome.

The maximum of convenience and efficiency is secured by having your McCray Refrigerator **specially designed for your home,** and arranged for outside icing. Stock sizes are also carried for immediate shipment.

Write for the Free Book

"How to Use Leftover Foods"—by Elizabeth O. Hiller, and for any of these free catalogs:—No. A. H. Built-to-order for Residences; No. 87, regular sizes for Residences; No. 67 for Groceries; No. 59 for Meat Markets; No. 48 for Hotels, Clubs and Institutions; No. 72 for Flower Shops.

McCray Refrigerator Co.

84 Lake Street **Kendallville, Indiana**

DIAMONDS WATCHES ON CREDIT LOFTIS SYSTEM

GIVE YOUR SWEETHEART A DIAMOND RING

Write for Our New Catalog containing over 1500 beautiful photographic illustrations of Diamonds, Watches and Artistic Jewelry. Select any article you would like to own or present as a gift to a loved one; it will be sent on approval to your home, place of business, or express office, without any obligation whatever on your part. If it is satisfactory in every way, pay one-fifth down and keep it, balance in eight equal monthly amounts. If not entirely satisfactory, return it. We pay all charges and take all risks. We have absolute faith in our goods because we know they are the very best quality and highest grade of workmanship. ***An Account With Us*** is a confidential matter. Our customers use their charge accounts with us year after year, finding them a great convenience at such times as birthdays, anniversaries, engagements, weddings, graduation, etc.

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No. 44

DIAMOND SPECIAL
Ladies' and Gentlemen's Diamond Rings. $11.00 down; $5.50 per month

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THE OLD RELIABLE ORIGINAL DIAMOND AND WATCH CREDIT HOUSE

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is the biggest money-making device on the market, for carnivals, picnics, fairs and street parades, on street corners, and in fact everywhere people gather.

The Cannon Camera makes 8 finished photo buttons in one minute, ready to wear.

Positively No Experience Required

Complete instructions go with every outfit and are simple enough to enable you to learn the business in 30 minutes.

Only $25 needed to start this big, pleasant, profitable business. This pays for complete outfit which consists of **Wonder Cannon Camera**, Tripod and supplies for making 400 finished photo buttons that sell for 10c and 15c each—cost 2c each. Selling the finished button picture at only 10c nets $40.00. This leaves a good profit above the original investment besides the ownership of the **Cannon Camera** and Tripod.

Additional Button Plates
$1.00 per hundred
Additional Gilt Frames
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Dept. 126 Chicago, Ill.

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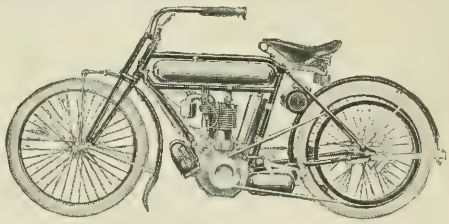
Think of the mountains, lakes, or towns within 50 miles of your home that you have often wanted to see.



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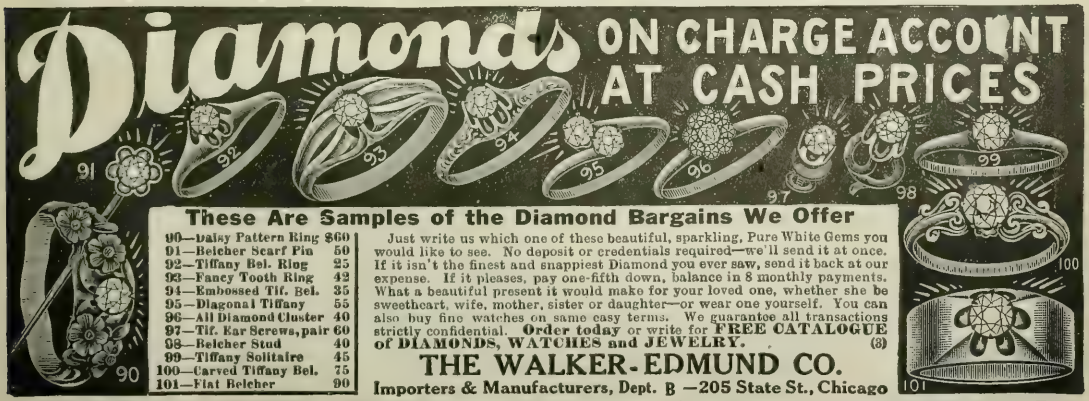

These Are Samples of the Diamond Bargains We Offer

90—Daisy Pattern Ring	$60
91—Belcher Scarf Pin	50
92—Tiffany Bel. Ring	25
93—Fancy Tooth Ring	42
94—Embossed Tif. Bel.	35
95—Diagonal Tiffany	55
96—All Diamond Cluster	40
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101—Flat Belcher	90

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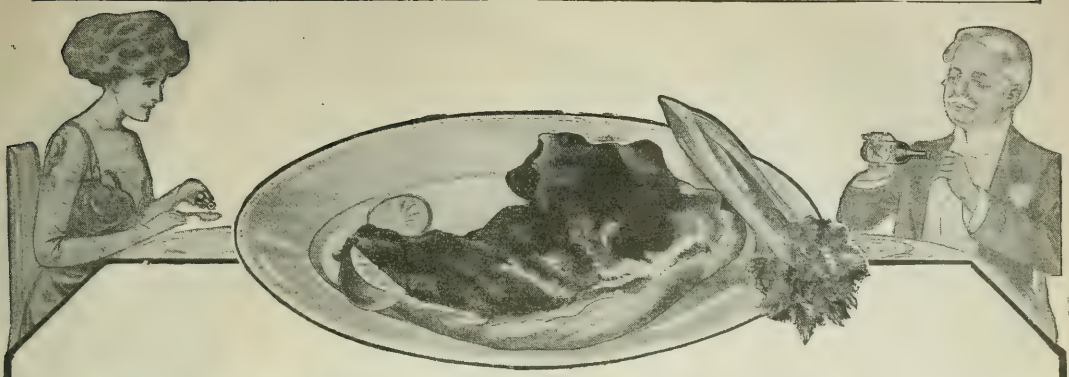

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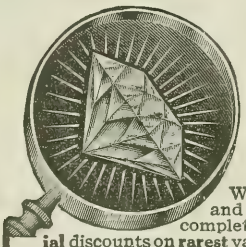

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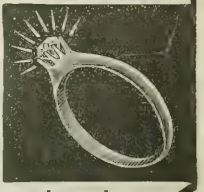
"F"irst and finest grade—diamonds are gems of rarest beauty. For instance, this **perfect** diamond, **perfect in cut, perfect in color, of rare scintillating beauty—$46.00—$4.60 a month** or **8 per cent off** for all cash. Shipped on approval—not a cent down.



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Price List and Special Discount Sheet

Now be sure to get this catalog and discount sheet and our approval shipment offer **before** you buy a diamond or jewelry. Send name and address on coupon.

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It Tells how You can have a Suit or Spring Overcoat Tailored to Measure

—your measure—made up exactly as you want it—in goods to satisfy your individual taste—guaranteed to fit perfectly and to be absolutely satisfactory in every way

For Less than You Would Pay for a Ready-Made

The suits that I make for $12.50 to $30.00 can not be duplicated elsewhere for twice the money. They have an individuality of their own. The workmanship, tailoring, style, fit, fabric, appearance, and wearing qualities are as good as long experience can make them. I personally superintend the making of each garment from the time the cloth goes to the cutting table until it comes from the presser's hands ready to be shipped to you. My prices are less than others, as I have no agents,' dealers,' or other middlemens' profits to pay. There is only one small profit added to the cost.

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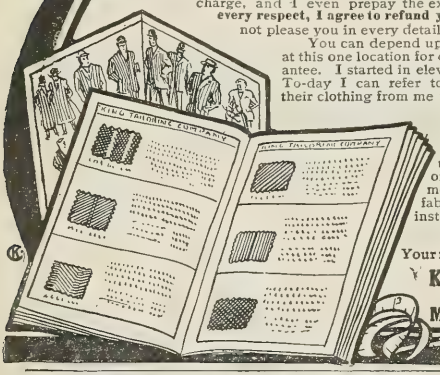
I will tailor a suit or overcoat to your measure for one-third to one-half less than your local tailor would charge, and I even prepay the express direct to you. **If you are not perfectly satisfied in every respect, I agree to refund your money.** You run absolutely no risk. If the suit does not please you in every detail, you are not obliged to take it.

You can depend upon my doing exactly as I say. I have been tailoring clothes at this one location for eleven years. I have always made this broad binding guarantee. I started in eleven years ago with very few customers and no reputation. To-day I can refer to thousands of satisfied customers, many of whom buy all their clothing from me year after year.



The Wisconsin National Bank of Milwaukee

with resources of over $20,000,000.00 can inform you as to my responsibility. They will tell you that my guarantee is genuine, and that I am reliable. I am confident that an order for one suit would lead to your continued patronage. Write to me for my book of styles, showing all of the newest fabrics and designs; fashion plates; tape line; easy instructions for self-measurement.

It is Absolutely FREE

Your name and address on a postal is sufficient.

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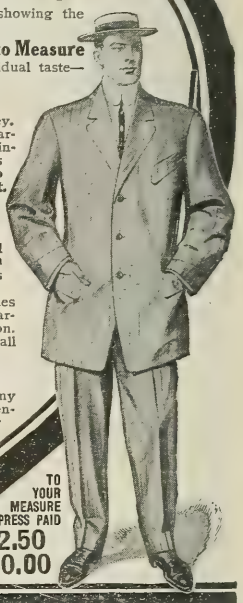

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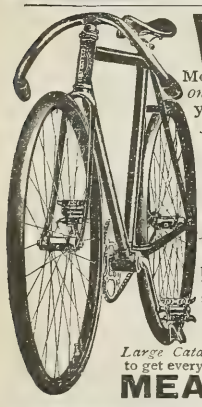

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and district to ride and exhibit a sample 1910 Model **"Ranger"** bicycle furnished by us. Our agents everywhere are making money fast. *Write at once for full particulars and special offer.* **NO MONEY REQUIRED** until you receive and approve of your bicycle. We ship to anyone, anywhere in the U. S. *without a cent deposit* in advance, *prepay freight*, and allow **TEN DAYS' FREE TRIAL** during which time you may ride the bicycle and put it to any test you wish. If you are then not perfectly satisfied or do not wish to keep the bicycle you may ship it back to us at our expense and *you will not be out one cent.*

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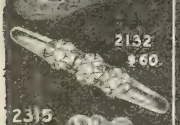

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Air-Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
Mechanical Draftsman	Bookkeeper
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Name_____

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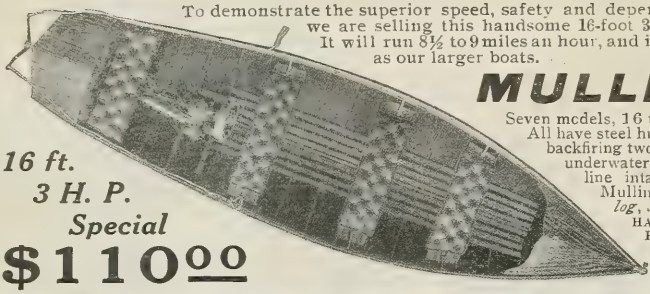

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MULLINS STEEL BOATS CAN'T SINK

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16 ft. 3 H. P. Special

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These gems are Chemical White Sapphires and **can't** be **told** from diamonds except by an expert. So **hard** they **can't** be filed, so will wear **forever** and retain brilliancy. We want you to see these gems—we will pay all expenses for you to see them.

Our Proposition—We will send you either rings or stud illustrated—by express C. O. D. all charges **prepaid**—with privilege of examination. If you like it, pay the express man—if you don't, return it to him and it won't cost you a cent. Fair proposition, isn't it? All mounted in solid gold, diamond mountings. **Send for Booklet.**

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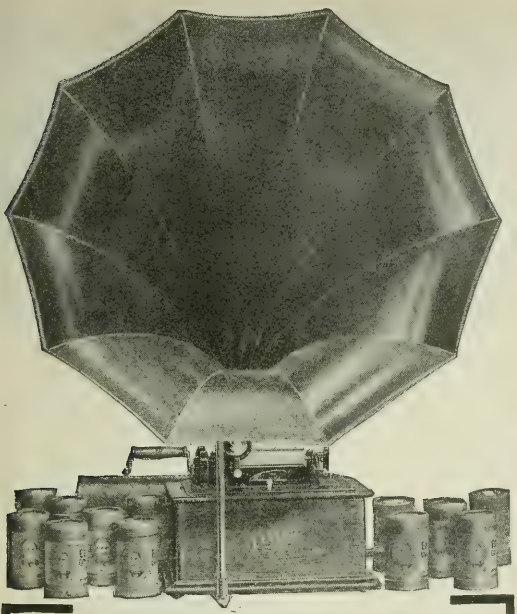
Same movement as above, with hunting case, **$16.75.**



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For almost four years I have been making the most liberal phonograph offer ever known! I have given hosts of people the opportunity of the genuine Edison Phonograph right in their own homes on ABSOLUTELY FREE TRIAL.

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IF YOU WANT TO KEEP IT—you may do so, but it is NOT compulsory. If you do wish to keep it, either remit us the price in full, or if you prefer, we will allow you to pay for it on the easiest kinds of payments.

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Edison Phonograph Distributers

Edison Block, DEPT. 1105, CHICAGO, ILL.

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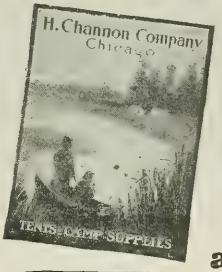

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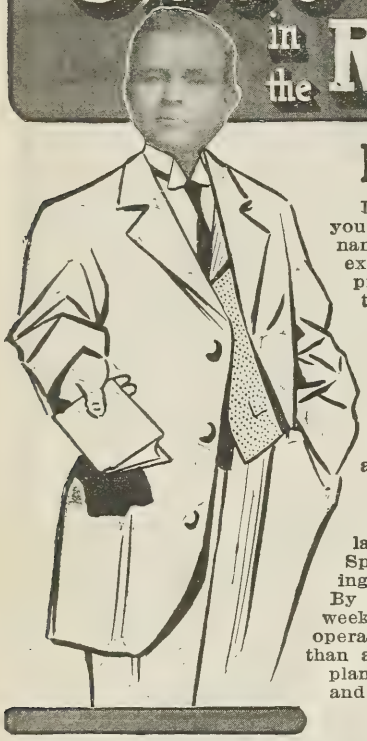

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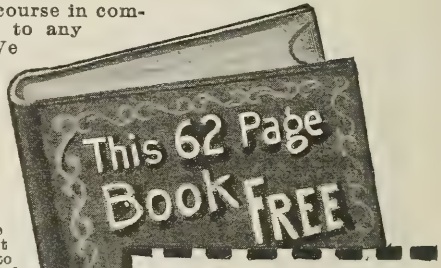

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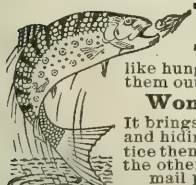

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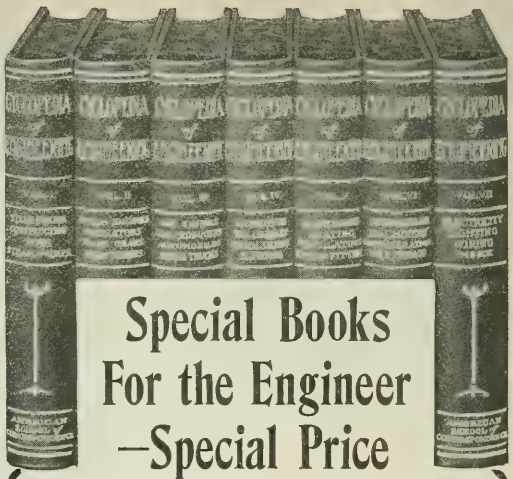

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